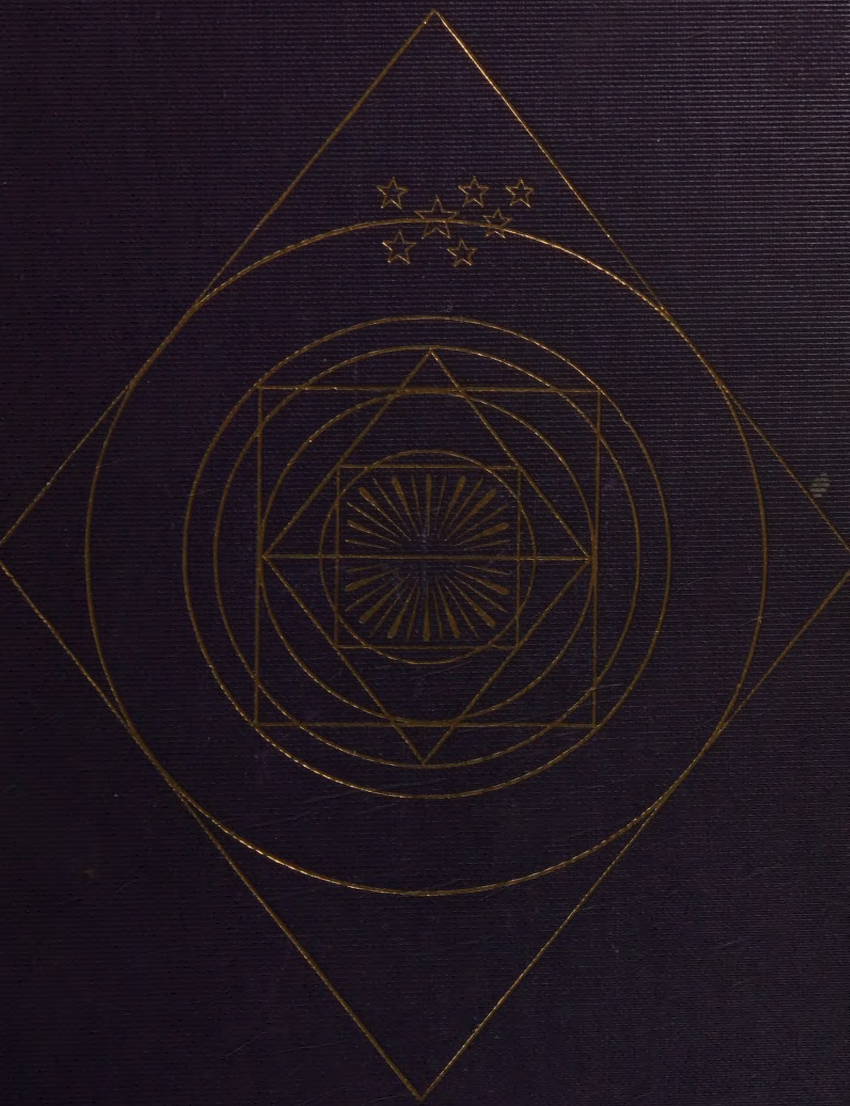

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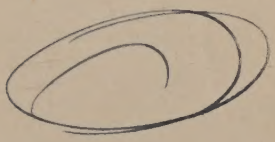

A MIRACLE IN STONE

OR

The Great Pyramid of Egypt

BY

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"In that day shall there be an altar to the Lord in the midst of the land of Egypt, and a pillar at the border thereof to the Lord; and it shall be for a sign and for a witness unto the Lord of Hosts in the land of Egypt."—Isa. 19: 19, 20.

PHILADELPHIA
THE CASTLE PRESS

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PREFACE.

THIS book is meant to give a succinct comprehensive account of the oldest and greatest existing monument of intellectual man, particularly of the recent discoveries and claims with regard to it.

If the half that learned and scientific investigators allege respecting the Great Pyramid of Gizeh be true, it is one of the most interesting objects on earth, and ought to command universal attention. It has been unhesitatingly pronounced, and perhaps it is, "the most important discovery made in our day and generation."

Simply as an architectural achievement, this mysterious pillar, from the time of Alexander the Great, has held its place at the head of the list of "The Seven Wonders of the World." But, under the researches and studies of mathematicians, astronomers, Egyptologists, and divines, it has of late been made to assume a character vastly more remarkable. Facts and coincidences so numerous and extraordinary have been evolved, that some of the most sober and philosophic minds have been startled by them. It would verily seem as if it were about to prove itself a sort of key to the universe—a symbol of the profoundest truths of science, of religion, and of all the past and future history of man. So at least many competent

persons have been led to regard it, after the most thorough sifting which the appliances of modern science and intelligence have been able to give it.

Particularly in Scotland, England, and France has the subject elicited much earnest interest. Quite a number of works and treatises, most of them voluminous, costly, and learned, have been devoted to it, and not without a marked and serious impression. St. John Vincent Day, Fellow of the Royal Scottish Society of Arts, member of sundry institutions of Engineers, and honorable librarian of the Philosophical Society of Glasgow, says:

"A former published work on the subject, besides one or two papers in the transactions of a scientific Society, have of necessity brought me into contact with every shade of opinion as to the various theories respecting the Pyramid, and the facts belonging to it. I have thus been enabled, both by verbal and written discussions and arguments, to ascertain the weight of evidence on which theories, assertions, contradictions, and alleged facts have been supported; and I can only state that in those cases where the Pyramid subject has been examined into with a diligent spirit of inquiry, that is with the aim of not merely strengthening preconceived notions or prejudices, but to evolve absolute realities, I have not yet met any one but who is more or less convinced by the modern theory."—Preface to *Papers on the Great Pyramid*, 1870.

In this country, the publications on the subject have been very circumscribed. A few tracts, short papers, review articles, or incidental discussions in

connection with other subjects, is about all that has thus far appeared from the American press. And as the European books are mostly large, expensive, and not readily accessible, comparatively few among us have had the opportunity of learning what has developed in this interesting field. A just résumé of the matter, of moderate length and price, in plain and easy form, would seem to be needed and specially in place.

In the absence of anything of the sort, and with a view to what might in measure supply the want, the preparation of the following Lectures was undertaken. How far the effort has succeeded, the candid reader will determine. It has at least been honest. Persuaded of the varied worth of the subject, the author has endeavored to be accurate in his presentations, and as thorough as the space would allow. For his data concerning the Pyramid he has been obliged to rely on the original works of explorers, to which due reference is given. Though in Egypt in the latter part of 1864, with a view to some personal examinations, a severe sickness, contracted in Syria and Palestine, prevented him from accomplishing the purpose for which he visited the land of the Pharaohs. But his interest did not therefore abate. In 1869 he gave out a small publication on the Great Pyramid, and having tried to master and digest what has thus far been adduced by others, he now ventures a larger exhibition of the case as it presents itself to him. The intricacies of mathematics and astronomy, so deeply involved in these pyramid investigations, he has in-

tentionally avoided, seeking rather to explain for the many than to demonstrate for the few. He has confined himself mostly to descriptions and statements of results, which he has sought to give in a way which all readers of average intelligence can readily follow and understand.

If what he has thus produced is so far favored as to promote a more general and deeper inquiry and study into this surprising and most perfect monument of primeval man, the chief object of the author will have been attained. The interest awakened by the Lectures at their oral delivery during the past winter, and the numerous applications to procure them in print, also encourage the belief that, with the notes and amplifications since added, they may perchance be acceptable and serve a good purpose. With the hope, therefore, of thus contributing something towards the furtherance of correct science, true philosophy, and a proper Christianity, the author herewith commits these sheets to the press, and to an appreciative and indulgent public.

To the Fourth Edition.

The new Lecture now added to this book has been deemed necessary to complete the presentation of the subject. It contains all that the author has at present to say on the state of the questions involved. A thorough *Index* to the whole is also given. It is hoped that these additions will greatly enhance the value of the work.

Philadelphia, September, 1878.

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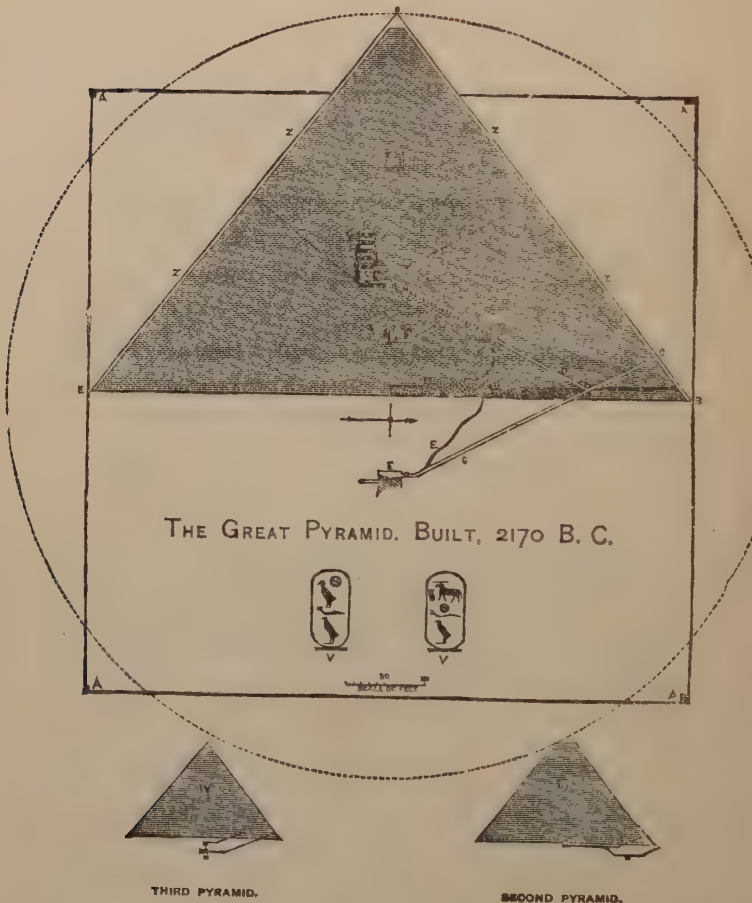
"EVERY student who enters upon a scientific pursuit, especially if at a somewhat advanced period of life, will find not only that he has much to learn, but much also to unlearn. As a first preparation, therefore, for the course he is about to commence, he must loosen his hold on all crude and hastily adopted notions, and must strengthen himself, by something of an effort and a resolve, for the unprejudiced admission of any conclusion which shall appear to be supported by careful observation and logical argument, even should it prove of a nature adverse to notions he may have previously formed for himself, or taken up, without examination, on the credit of others. Such an effort is, in fact, a commencement of that intellectual discipline which forms one of the most important ends of all science."—*Sir John Herschel.*

"THE fair question is, does the newly proposed view remove more difficulties, require fewer assumptions, and present more consistency with observed facts, than that which it seeks to supersede? If so, the philosopher will adopt it, and the world will follow the philosopher."—*Grove's Address to the British Association for the Advancement of Science.*


THE GREAT PYRAMID. BUILT, 2170 B. C.
THIRD PYRAMID.
SECOND PYRAMID.

INDICATIONS ON THE DIAGRAM.

A, A, A, A, The square outline and corner sockets of the Pyramid's base.

B, B, B, Pyramid cut in half, viewed from the east, to show interior.

C, C, C, Entrance passage, pointing to what was then the pole star, Alpha Draconis, at its lower culmination, 2170 B. C.

D, D, First ascending passage.

E, E, E, The well, a tortuous opening down to lower end of entrance tube.

F, The subterranean chamber, not finished.

G, G, G, Native rock, squared but left standing.

H, Horizontal passage, to Queen's Chamber.

I, Sabbatic or Queen's Chamber.

J, Grand niche in Queen's Chamber.

K, K, Ventilating tubes to Queen's Chamber.

L, Grand Gallery, 28 feet high and 1882 inches long.

M, M, M, Rampstones, incisions, and vertical settings along the side of Grand Gallery's base.

N, Great step at south end of Grand Gallery.

O, Granite leaf in anteroom to King's Chamber.

P, P, Anteroom to King's Chamber.

Q, King's Chamber, or chief known room.

R, Grand Coffer in King's Chamber, fine granite, finely polished.

S, S, S, S, S, Chambers of construction above main chamber.

T, T, Ventilating tubes to Main or King's Chamber.

U, Supposed undiscovered Chamber.

V, V, Cartouches of the two Kings, Shufu and Nem-Shufu, otherwise called Cheops or Suphis, and Sen-Suphis or Noh-Suphis, under whose co-regency the Great Pyramid was built, from quary-marks painted on the stones.

W, W, Sections of next two pyramids, showing their interior openings, and the absence of any upward passages, which proves them to be imitations, the upward passages in Great Pyramid having been closed up by its builders, and unknown until about 1000 years ago.

X, X, Al Mamoun's forced passage, about A. D. 825, by which the upward passages and rooms were first discovered.

Y, Time-marks of the building of the Pyramid, 2170 inches back on the floor-lines from the beginning of the Grand Gallery.

Z, Z, Z, Z, Casing-stones, now gone, quarried off by the Muslims.

☞ The dotted circular line drawn to the radius of the Great Pyramid's vertical height, shows the squaring of the circle, the length of that line being the same as the four sides of the Pyramid's base, proving the edifice built to the mathematical π proportion.

☞ The shading in crossed lines indicates what parts of the Pyramid are red granite; the other portions, as far as known, are of a species of limestone, of a color approaching yellowish-white.

☞ By the use of a magnifier the lettering and indications on the diagram will be brought out in ample distinctness.

As wards, who long suppose
All that they spend to be
Their guardian's liberality,
Not what inheritance bestows,
Their thanks to others ignorantly pay
For that which they
At last perceive to be their own,
To their rich ancestors obliged alone;—
So we vainly thought
Ourselves to Greece much bound
For arts which we have found
To be from higher ages brought,
By their as well as our forefathers taught.

Gale's "Court of the Gentiles."

A MIRACLE IN STONE:

OR,

THE GREAT PYRAMID OF EGYPT.

Lecture First.

GENERAL FACTS AND SCIENTIFIC FEATURES.

ONE of the ablest of England's Egyptological writers has said that Egypt is the anomaly of the earth's present surface. The very adaptations and adjustments of the air and solar distances, by which vegetable life is sustained in other countries, here give place to another code, framed expressly for the Nile. The same may be said of it with regard to its place in history. It has always been somewhat aside from the general current of affairs, having its own unique constitution and life, and yet closely related to all civilized humanity. Through whatever path, sacred or profane, we propose to go back to the beginnings, Egypt is never entirely out of view. Closely secluded from

all the rest of the world—the Japan of the ages—it still lies at the gateway of the traditions of Judea, Greece and Rome; intermingles with all the Divine administrations, and connects, in one way or another, with some of the most famous names and events in the annals of time.

It is a land which has been reclaimed and created by the Nile, that "High Priest of streams,"

> Whose waves have cast
> More riches round them, as the current rolled
> Through many climes its solitary flood,
> Than if they surged with gold.

The shoreline, around the several mouths of this mysterious river, describes a large semicircle, to which the emptying streams run out like the ribs of a spread fan, or like so many spokes of a wheel. The centre of this arc is the first rocky elevation on the south, about ten miles west of Cairo. And, strange to say, that centre is artificially and indelibly marked by a massive stone structure, of almost solid cyclopean masonry, of a form found in no other country, and at once the largest and oldest building now standing on the face of the earth. This hoary monumental pile is *The Great Pyramid of Gizeh*, of which it is my purpose to present some account.

The Chart.

In order to aid the mind by means of the eye, I have caused a diagram of the Great Pyramid to be prepared, which, if first carefully examined, will materially contribute to a clear understanding of what is to be said. A few explanations may be necessary, and hence are here given.

The large square, marked by heavy black lines, indicates the base of the edifice, which covers about thirteen acres of ground, equal to about four ordinary blocks of our city, including their streets. The darkened triangular mass represents the body of the pyramid, showing the slopes of the sides as they rise to a point at the summit. The lines on the outside mark the original size, as covered with polished casing-stones, all of which have been quarried off by the Moslems, to build and ornament the mosques and houses of Cairo, or to be burnt for lime. About thirty feet of the original edifice has also disappeared from the top, leaving perhaps twenty-four feet square of level space, from which the strongest man cannot throw a stone, or shoot an arrow, far enough to fall clear of the base. Even with so much of the summit gone, it is still more than double the height of

the highest steeple or tower in Philadelphia, and higher than the highest known steeple or tower in the world.

The elevation shows the pyramid cut in half, from north to south, in order to give a view of the interior. As here seen, the spectator is looking from east to west. There are no known openings but those which appear in these open and unshaded spaces. The dark square toward the top (U) indicates an imaginary room which is believed to exist, but not yet discovered.

The only entrance into the edifice, as left by the builders, is that low and narrow square tube, which begins high up on the north side, and runs obliquely down to an unfinished room in the solid rock, about one hundred feet below the levelled surface on which the pyramid stands. The size of this entrance passage is not quite four feet high, and a little over three feet five inches wide. A man needs to stoop considerably to pass through it, and to take heed to his steps on account of the steep incline, originally finished as smooth as a slate, from top to bottom.

The first upward passage is directly over the entrance-tube, and is of the same general size and character. It follows the same direc-

tion from north to south, and conducts to a high, long and beautifully finished opening, whose floor-line is continuous with the passage of ascent to it. This is the Grand Gallery, twenty-eight feet high, each of whose sides is built of seven courses of overlapping stones. It is covered by thirty-six large stones stretching across the top. It is a little over eighteen hundred and eighty-two inches long, and suddenly terminates against an end wall, which leans inward. The further opening is low and small again, leading into a sort of narrow anteroom, in which a double and heavy granite block hangs from grooves in the side walls.

Then follows another low entrance leading into what is called the King's Chamber, the highest and largest known room in the edifice. In this chamber stands the only article of furniture in the pyramid, the celebrated granite Coffer. Above this room are shown what are called the chambers of construction, indicating how the builders arranged to keep the weight of the superincumbent mass from crushing in the ceiling of the King's Chamber, which ceiling consists of nine powerful blocks of granite, stretching from one side to the other. The dark or crossed shadings about this chamber indicate the stones to be granite, all the rest of the building not so marked is of light

limestone. This room is an oblong square, four hundred and twelve inches long, two hundred and six broad and two hundred and thirty high. It is ventilated by two tubes, running from it to the outer surface.

Directly under the Grand Gallery, and running in the same direction from north to south, is a horizontal passage, which starts on a level with the entrance into the Grand Gallery, and leads to what is called the Queen's Chamber. The floor of this room, if floor it may be called, measures two hundred and five by two hundred and twenty-six inches, and stands on the twenty-fifth course of masonry, as the King's Chamber stands on the fiftieth course. It has a pointed arch ceiling. Though excellently finished, this room has neither ornament nor furniture. There is a ledge marked evenly around its sides at the height of the passage of entrance, and a remarkable niche in its east wall, the top of which is just twenty inches across and twenty-five inches south from the vertical centre of the wall into which it is cut. This room also has two tubes leading from it, only recently discovered, which the builders left concealed by a thin scale over each. They are cut regularly, and approach inward through the walls to within five inches of the inner surface, which was left as though

no such openings existed back of it. Whether these tubes extend to the outer surface has not been ascertained.

Nearly three feet from the beginning of the Grand Gallery, on the west side, is a torn and ragged opening, in which is the gaping mouth of a strange well, running irregularly and somewhat tortuously down through the masonry and original rock, till it strikes the main entrance a short way above the subterranean chamber. Nearly half the way down it expands into a rough grotto or wide bulge in the opening, making a large irregular subterranean bowl.

Below the entrance passage, and a little to the west of it, the dark and rugged opening shown represents the hole made by one of the Mohammedan caliphs, about A.D. 825, who thus cut into the pyramid in search of treasures, not knowing that there was an open passage not far above.

The small black squares represented at the corners of the base indicate the peculiar sockets, cut eight inches into the living rock, into which the foundation corner-stones were set. These are characteristics of the Great Pyramid, in which it differs from all others, and are of special value, in the present ruinous condition

of the edifice, in ascertaining the exact original corners and the precise lengths of the sides.

The encompassing circle, drawn to the radius of the pyramid's height, indicates the mathematical idea to which the whole building is constructed; the length of the four sides of the square base being the same as the circumference described by a sphere, of which the vertical height is the radius. It shows the edifice in that remarkable feature, to wit, a practical *squaring of the circle.*

The smaller pyramids below represent the next in size and age to the Great Pyramid. They are introduced for no other purpose than to show the difference of interior between them and it; on which difference an argument is founded to prove them mere ignorant imitations of the Great Pyramid, and not at all to be classed with it in intellectuality and design.

The hieroglyphics are reproductions of the *cartouches* of the two kings, Shufu and Nem-Shufu, who occupied the throne at the time the Great Pyramid was built. They were discovered by Colonel Howard Vyse, in 1837, roughly painted on the undressed sides of the stones in the upper chambers of construction, which were never opened until he forced a way up to them.

The History.

There is no known time within our historic periods when this pyramid was not famous. Herodotus, the so-called Father of History, as early as 445 B.C., made a personal examination of it, and devoted some most interesting paragraphs to it. It was then already considered very ancient. Traditional accounts of its erection he gathered through an interpreter from an Egyptian priest, and these he has recorded with much particularity. His own appreciation of the structure, and of the causeway over which the materials were conveyed, was that of wonder and admiration.*

Homer does not seem to make any allusion to it, perhaps for the reason that it had no connection with mythology, or with any of his heroes.

Eratosthenes (236 B.C.), Diodorus Siculus (60 B.C.), and Strabo and Pliny (about the beginning of our era), all wrote of it. The latter, in referring to the Pyramids, also says, "The authors who have written upon them are Herodotus, Euhemerus, Durius Samius, Aristagoras, Dionysius, Artemedorus, Alex-

* See Rawlinson's Herodotus, Book II, chap. 124, vol 2 pp. 169-176.

ander, Polyhistor, Butorides, Autisthenes, Demetrius, Demoteles, and Apion."*

But though the Great Pyramid has been standing in its place for 4000 years, it is only within a very recent period that there has been any rational appreciation of it. For 3000 years of its existence, up to the time of the mediæval Caliph Al Mamoun, no mortal man, perhaps, ever penetrated into its upper passages and main openings. Certainly, for many centuries before him, it was completely closed up, no entrance to it being known any more to any human being.

This son of Haroun Al Raschid of the "Arabian Nights," flattered and almost worshipped as a god, was so wrought upon by the romancers and fabulists of his court that he was led to believe the Great Pyramid crowded full of precious treasures. All the dazzling riches, jewels, medicines, charms, and sciences of Sheddad Ben Ad, the Mussulman's great antediluvian king of the earth, were made to glitter before the avaricious fancy of Al Mamoun. He therefore set his hosts at work to quarry out an opening into the wonderful treasure-house, full of astonishing riches in-

* Nat. Hist., tom. 36, sec. 16.

deed, but not of the sort of which he was dreaming.

With the crude instruments and poor knowledge which his hordes possessed, it proved no easy task to cut through that grand masonry. Again and again the thing was pronounced impossible. But Mohammedan fanaticism and tyranny proved equal to the undertaking; not, however, without straining everything to the very utmost, and Al Mamoun's own power to the point of revolution. The excavation was driven in full one hundred feet, with everything solid up to that point. Having expended all this labor to no effect, all further effort was about to be abandoned, when a singular, perhaps providential, occurrence served to reanimate exertion. The sound of a falling stone in some open space not far beyond them was heard, which incited them to dig and bore on, till presently they broke through into the regular passage-way. They struck this tube just where the first ascending passage forks off from the descending one. The stone which had fallen was one which hung in the top of the entrance passage, quite concealing the fact of another and upward way. But the newly uncovered passage they found stopped by a heavy stone portcullis, fitted into it from

above as tight as a cork in the mouth of a bottle. It was impossible to remove it. It remains there still. Al Mamoun caused his men to dig and blast around it. But even beyond the portcullis, the whole passage was filled up with great stones from top to bottom. Removing one, the next slid down in its place; and so another and another, each of which was removed, till at length the entire upward avenue was freed from obstructions. Up went the bearded crew, shouting the name of Allah, in full confidence that the promised treasures were now within their grasp. "Up," as Prof. Smyth describes it, "up no less than one hundred and ten feet of the steep incline, crouched hands and knees and chin together, through a passage of royally polished lime-stone, but only forty-seven inches high and forty-one broad, they had painfully to crawl, with their torches burning low." Thence they emerged into the Grand Gallery, long and tall, seven times as high as the passage through which they came, empty, however, and darker than night. Still the way was narrow and steep, only six feet wide at any point, and contracted to three at the floor, though too high for the power of their smoky lights to illuminate Up and up the smooth and long ascending floor-line the marauders pushed

their slippery and doubtful way, till near the end of the Grand Gallery. Then they clambered over a three-foot step; then bowed their heads beneath a low doorway, bounded on all sides with awful blocks of frowning red granite; and then leaped without further hindrance into the Grand Chamber, the first to enter since the Great Pyramid was built.*

* It is barely possible that there was once a forced entrance into the upper parts of the Great Pyramid, long before the Mohammedan times. At the beginning of the Grand Gallery there is a missing ramp-stone, which once covered the mouth of the well. This ramp-stone seems to have been forced out from below upwards, as a fragment of it is still seen adhering to the next stone, held by the firm cement of the joint. Hence it is surmised that some fanatics of the dynasties of Ethiopic intruders, or the Persian conquerors after them, forcibly entered in search of treasures by means of the well, and then closed up the entrance again to conceal what they had done. This is thought the more probable, as the other pyramids, which were used as royal tombs, seem to have been entered and rifled at some remote period of the past. But when we consider some of the high prophetic meanings connected with the Grand Gallery, and of that well out of which it takes its beginning, we would rather infer that the builders themselves broke out that ramp-stone, or sealed on that fragment in a way indicative of violent bursting out from below, as part of the great intention and teaching of the mighty fabric. This is the more probable, (1) because no part of that missing ramp-stone has ever been found; (2) because of the extraordinary difficulty of breaking away such a stone from within the well; and (3) the difficulty of, and absence of motive for, a removal of the stone if broken in by the supposed marauders. Hence we conclude that the situation was intentionally so left by the

A noble chamber did these maddened Moslems also find it, clean and garnished, every surface of polished red granite, and everything indicative of master builders. But the coveted gold and treasures were not there. Nothing was there but black and solemn emptiness. There stood a solitary stone chest, indeed, fashioned out of a single block, polished within and without, and sonorous as a bell, but open, lidless, and empty as the space around it. The caliph was astounded. His quarriers muttered their anathemas over their deception into such enormous, unrequited, and fruitless labors. Nor could Al Mamoun quiet the outbreaking indignation toward him and his courtiers, except by one of those saintly frauds in which Mohammedanism is so facile. He commanded the discontents to go dig at a spot which he indicated, where they soon came upon a sum of gold, exactly equal to the wages claimed for their work, which gold he had himself secretly deposited at the place. When it was found, he could not repress his astonishment that those mighty kings before the flood were so full of inspiration as to be able to count so

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builders themselves, and that no one after them had entered the upper parts of the Great Pyramid prior to Al Mamoun's hordes.

truly what it would cost in Arab labor to break open their pyramid!

But the great mysterious structure was now open. Henceforward any one with interest and courage enough to attempt it might enter, examine, study, and find out what he could.

For centuries the Arabians went in and out betimes, when able to overcome their superstitious fears. Some of their marvellous tales of small miracles and vulgar wonders have been put on record. But apart from the mere fact of the forcible entrance by Al Mamoun, it is agreed that scarcely a shred of their testimony is at all credible.*

* The principal Arab writers who give accounts of the Pyramids are Abou Ma Sher (died 272 of the Hegira), Ebn Khordadbeh (died about 300 of same era), Abou Rihan Mohammed (about 430), Masoudi (died 345), Abou Abdullah Mohammed (died 454), Abd Alatif (born 557), Shehab Eddin Ahmed (died about 745), Ebn Abd Al Hokm Makizi (died about 845), Soyuti (died 911), etc. The dates given are those of the Hegira, to which add 622 to give the year of our era.

The worth of what these men have recorded, may be learned from the following testimonies:

"The authority of Arab writers is not always to be relied on."—Sir Gardiner Wilkinson, *Murray's Handbook*, 1867, p. 168.

"The only fact which seems to be established by the Eastern authors to whom we have now referred (the Arabians), is the opening of the Great Pyramid by Al Mamoun; and even of that, no distinct or rational account exists."—Col. Howard Vyse.

Prof. John Greaves (1687) quotes from some of these writers,

We must therefore depend on the explorations and accounts of the more observant, appreciative, and philosophic European mind for our knowledge of the Great Pyramid. In some instances, however, the case is not much improved. Sir John Mandeville, perhaps the greatest English traveller of the middle ages, who spent thirty-three years in wanderings through the East, visited Egypt and the Pyramids about A.D. 1350, and has left us a theory concerning them, but confesses that he was afraid to enter them, because they were reputed to be full of serpents !*

The earliest writer of modern times from whom we have any scientific data with regard to the Great Pyramid is Mr. John Greaves, Savilian Professor of Astronomy in the Uni-

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and adds, "Thus far the Arabians, which traditions of theirs are little better than a romance."

Professor Smyth, after trying and testing the whole body of accounts, says, "We find ourselves standing again just where Prof. Greaves stood in 1637, obliged to reject every rag of testimony from the followers of the false prophet."—*Antiquity of Intellectual Man*," p. 277.

* Other European authors who have given accounts of the Pyramids are Cyriacus, A.D. 1440; Breydenbach, 1486; Bellonius, 1553; Johannes Helfricus, 1565; Lawrence Aldersey, 1586; Jeane Palerma, 1581; Prosper Alpinus, 1591; Baumgarten, 1594; Sandys, 1610; Pietro Della Vale, 1616; De Villamont, 1618; Rabbi Benjamin, 1638; most of whom themselves visited the Pyramids.

versity of Oxford. At his own private expense he left London in the spring of 1637 for the special purpose of thoroughly exploring these ancient edifices, and in 1646 published his *Pyramidographia*, giving the results of his laborious observations and measurements, which are of particular worth in obtaining an accurate knowledge of this subject. But he was soon followed by other explorers, French, English, Dutch, Germans, and Italians.*

Special additions were made to the stock of Pyramid information by Nathaniel Davison, British Consul at Algiers (1763), who resided three years in Egypt, frequently visited the Great Pyramid, discovered the first of those chambers of construction above the so-called King's Chamber, drew a profile of the original casing-stones, and made the first diagram of the supposed appearance of this pillar when it stood complete.†

* Among these may be mentioned De Monconys (1647), Thevenot (1655), Melton (1661), Vausleb (1664), Kircher (1666), Lebrun (1674), Maillet (1692–1708), De Careri (1693), Lucas (1699), Veryard (1701), Quatremere (1701), Egmont (1709), Perizonius (1711), Pere Sicard (1715), Shaw (1721), Norden (1737), Pococke (1743), Dr. Perry (1743), Fourmount (1755), Niebuhr (1761).

† The results of Davison's labors are contained in the Memoirs of Rev. Robert Walpole, and are alluded to at some length in vol. 19 of the *Quarterly Review*. Other writers on the

When Napoleon was engaged with his military operations in Egypt (1799), the French *savants* who accompanied his expedition also did important service in furnishing a knowledge of the Great Pyramid. They surveyed the ground. They determined the value of the location in trigonometrical relations. They found two of the "encastrements," or incisions in the rock, meant to serve as sockets for the original corner-stones of the foundation. Their observations and mostly very accurate measurements, with cuts, engravings, and descriptions of the Great Pyramid, were subsequently published, in large and elegant form.*

Very splendid contributions to our knowledge of the subject were made by Colonel (afterwards General) Howard Vyse in his three large royal octavo volumes, containing the results of seven months' labor, with a hundred or more assistants, in exploring and measuring the

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subject after him, were Bruce (1768), L'Abbe De Binos (1777), Savary (1777), Volney (1783), Browne (1792–98), Devon (1799).

* See Colonel Coutelle's remarks (1801), and particularly M. Jomard's descriptions (1801).

Other writers are Hamilton (1801), Dr. Whitman (1801) Dr. Wilson (1805), M. Caviglia (1817), M. Belzoni (1817), Signore Athanasi (1817), Dr. Richardson (1817), Mr. Webster (1827), Wilkinson (1831) Mr. St. John (1832), Captain Scott and Mr. Agnew (1837).

Pyramids, in 1837. It is he especially who, at the expense of a large fortune, laid the foundations for some of the most brilliant and important developments to be found in all the scientific world of our century. He reopened the ragged hole driven into the stupendous edifice by the semi-savages of Al Mamoun, and made some others himself, part of which were equally fruitless. He uncovered again the two indented sockets of the north base corners. He discovered and reopened the remarkable ventilating tubes of the King's Chamber. He cut a way through the masonry above that chamber, and found four other openings besides the one discovered by Davison. He found in those recesses various quarry-marks in red paint, proving that writing was known and practiced in the fourth Egyptian dynasty. Among these marks were the *cartouches* of the co-sovereign brothers who reigned at the time the Great Pyramid was built. He also found some of the original casing-stones still fast in their places, as well as portions of a splendid pavement which once surrounded the edifice. In addition to these new discoveries he fully confirmed what had been ascertained before, and served to bring this marvellous structure within the sphere of modern scientific investi-

gation. Through him, Sir John Herschel espoused the belief that the Great Pyramid possesses a truly astronomical character, and that its narrow tubic entrance pointed to some polar star, from which the date of the building is determinable. At Vyse's instance this astronomer made the calculation, and found the pointing to indicate the same period of time which, on other and independent data, had been concluded as the period of the Great Pyramid's building. And thus was laid the basis from which a new theory of this marvellous pillar has sprung.

The Modern Scientific Theory.

Taking what had thus been produced with regard to the Great Pyramid, John Taylor (one of the firm of Taylor & Hessey, publishers of the *London Magazine*, and subsequently of the firm of Taylor & Wallace, publishers to the University of London), undertook to wrestle with the questions: *Why was this pyramid built? And who built it?* Canvassing the whole problem in the light of history, religion, and science, he came to some very surprising conclusions, involving an altogether new departure in Pyramid investigations, and enunciating a number of facts with regard to

the mathematical features of the Great Pyramid, which once were ridiculed, but are now generally admitted as demonstrably true. In 1859 he published a small volume, in which he proposed "to recover a lost leaf in the world's history," and gave his processes and the results. Without having seen the Great Pyramid, but on the basis of the facts recorded by others, he gave it as his theory and conviction that the real architects of this edifice were not Egyptians, but men of quite another faith and branch of the human family, who, by an impulse and commission from heaven, and by the special aid of the Most High, induced and superintended the erection of that mighty structure, as a memorial for long after times, to serve as a witness of inspiration, and of the truth and purposes of God, over against the falsities and corruptions of a degenerate and ever degenerating world. In other words, he claimed to find, in the shape, arrangements, measures, and various indications of the Great Pyramid, an intellectuality and numerical knowledge of grand cosmical phenomena of earth and heavens, which neither Egypt nor any of the nations possessed, or could even understand, from a thousand years ago, back to the origin of nations.

This was a bold, striking, and far-reaching presentation, and one well worthy of the attention of the thinkers of our age, both religious and philosophical. Very few, however, paid much attention to his vigorous little book. Yet the grounds on which he proceeded and the processes employed, were so purely within the domain of science, and hence so easy of decisive refutation if not true, that scientists could hardly be fair to their profession without some investigation of the matter. Sir John Herschel was certainly much impressed with some of the results and conclusions brought out by Mr. Taylor, and also very powerfully used them in his papers on the standard of British measures, over against the falsely founded system of metres, originated by the French infidels and communists.

A few years after the appearance of Mr. Taylor's book, it arrested the attention and enlisted the interest of Prof. C. Piazzi Smyth, of Edinburgh, Astronomer Royal for Scotland. Having investigated the subject to some extent, he presented a paper to the Royal Society of Edinburgh, in 1864, giving the results of his researches and calculations to test the truth of some of Mr. Taylor's startling presentations, and setting forth his acquiescence in many of

the details, though on somewhat different grounds. These investigations and conclusions of Prof. Smyth were published the same year, in his book, *Our Inheritance in the Great Pyramid*, a new, revised, and enlarged edition of which was published in 1874. This book, in its revised form, is perhaps the best from which to get a full impression, within a limited space, of the nature and grounds of the modern scientific theory on the subject.

The better to satisfy himself, and in order to clear up some matters of uncertainty in the case, Prof. Smyth, at his own expense, went to Egypt, and spent the winter and spring of 1865, devoting the time to the work of testing, by the best modern scientific appliances, what others had recorded concerning this pyramid. To facilitate his operations, he and his brave wife took up their abode in some of the tombs in the vicinity, where they lived and worked from the first of January to the end of April. The results of these self-denying labors were given to the public in three brilliant volumes, in 1867, entitled, *Life and Work at the Great Pyramid*, with a sequel in the year following, *On the Antiquity of Intellectual Man*.

From the publication of these very valuable books, various discussions in learned societies

and the public prints followed; new investigators entered upon the subject; and many converts to the new theory were made. A number of able papers appeared, confirming and enlarging what had previously been deduced, and fully supporting the scientifically grounded and growing belief that this venerable pillar has about it something more than a mere tomb for some rich and ambitious old Pharaoh, and something infinitely more than was ever in the power of the Egyptians to originate, or even to understand. In other words, that it was designed and erected under the special guidance and direction of God, and bears a somewhat similar relation to the physical universe which the Bible bears to the spiritual.

Upon first blush such a theory would seem to be the very height of fanaticism and nonsense. And so a few, in their offended conceit and prejudice, rather than from any solid scientific reasons, have regarded it. As commonly, in all such cases, the power of coarse ridicule has been brought to bear against it; but thus far no candid and thorough attempt has been made to overcome the many solid and outstanding evidences on which it rests. Goodsir, in his volume on *Ethnic Inspiration*, has

justly said, "The scientific symbolism of that world's wonder now stands nearly disclosed to view, resting on its own independent basis of proof, which is not only vouched for, but defended by advocates undeniably competent to their work, and as yet occupying inexpugnably their ground." Every attack upon it thus far has resulted in such signal failure as the more to confirm it.

It is of course impossible here to go into all the particulars, processes, and scientific inductions on which this theory rests. These are given, in all their surprising force, in the able original works to which I have referred, and to which I direct all who wish to sift the matter thoroughly or inform themselves fully. Mathematicians and scientists will find enough there to call all their knowledge into play, and to occupy their inquiries and skill for as much time as they may have to give. My office is of a much simpler and easier sort. A brief *résumé* of the principal facts, to enable those who hear me to form some fair opinion of the matter, is all that I propose, feeling that if I can succeed in this, I shall have done something of worth in making known the wonders of wisdom so long ago treasured up in the Great Pyramid of Gizeh.

The Various Pyramids.

There are numerous pyramids in Egypt. Including all sizes and forms, perhaps three dozen may still be found. They belong to different ages, from B.C. 2170 down to B.C. 1800. Externally, they all are more or less of the same general form. A few are not much inferior in dimensions, materials, and outward finish to the Great Pyramid itself. But there is one, the northernmost of the line, which has ever held the pre-eminence, and which has always been regarded with the greatest interest. The sacred books of the Hindoos speak of three pyramids in Egypt, and they describe this as "the golden mountain," and the other two as mountains of silver and less valuable material. By a sort of intuition, all nations and tongues unite in recognizing this one as *The Great Pyramid.* It covers the most space. It occupies the most commanding position. It is built with most skill and perfection of workmanship. And its summit rises higher heavenward than that of any other.

This greatest of the pyramids is also the oldest of them. Lepsius says, "The builders of the Great Pyramid seem to assert their right to form the commencement of monumental

history." "To the Pyramid of Cheops the first link of our whole monumental history is fastened immovably, not for Egyptian, but for universal history." Prof. Smyth holds that "the world has no material and contemporary record of intellectual man earlier than the Great Pyramid." Beckett Denison agrees that this is "the earliest and largest of all the pyramids." Hales in his *Analysis*, Sharpe in his *History of Egypt*, Bunsen in his *Egypt's Place in History*, and the best authors in general, make the same representations. There is no evidence on earth, known to man, that ever a true pyramid was built before the erection of the Great Pyramid of Gizeh.

Here, then, is a fact to start with which utterly confounds the ordinary laws in human affairs. The arts of man left to himself, never attain perfection at once. At all times and in all countries, there is invariably a series of crude attempts and imperfect beginnings first, and thence a gradual advance from a less perfect to a more complete. Styles of architec ture do not spring into existence like Minerva from the brain of Jupiter, fullgrown and perfect from the start. But here all ordinary laws are reversed, and the classic dream finds reality. As with the beginning of our race,

so with the pyramids, the most perfect is first and what comes after is deteriorate. The Great Pyramid comes upon the scene and maintains its grand superiority forever, without any preceding type of its class whence the idea was evolved. Renan says, "It has no archaic epoch." Osburn says, "It bursts upon us at once in the flower of its highest perfection." It suddenly takes its place in the world in all its matchless magnificence, "without father, without mother," and as clean apart from all evolution as if it had dropped down from the unknown heavens. We can no more account for its appearance in this fashion on ordinary principles than we can account for the being of Adam without a special Divine intervention.

This pyramid once in existence, it is not difficult to account for all the rest. Having been taught how to build it, and with the grand model ever before them, men could easily build more. But how to get the original with its transcendent superiority to all others is the trouble. The theory of Mr. Taylor and Prof. Smyth would admirably solve the riddle; but apart from that, there is no knowledge of man by which it can be solved. People may guess and suppose; but they can tell us nothing.

The evidences also are, that the whole family of Egyptian pyramids, and there are no others, is made up of mere blind and bungling imitations of the Great Pyramid. They take its general form, but they every one miss its intellectuality and take on none of their own. None of them has any upper openings or chambers; and the reason is furnished in what Al Mamoun on making his forced entrance found in the Great Pyramid, to wit, the fact that its upward passage-way was stopped by its builders, filled up, hidden, and then for the first time discovered. These upper openings, though the main features of the Great Pyramid's interior, were wholly unknown to the copyists, and hence were not copied. The downward passage and the subterranean chamber were known, and could be inspected; hence these features appear in all the pyramids. It would be difficult to conceive more conclusive internal evidences of mere imitation, or of the certainty that the Great Pyramid is the real original of all pyramids. All the rest are but vulgar and unmeaning piles of stones in comparison with it.

Form and Proportions.

A building having a square base and its four

sides equally sloped inwards to a single point at the top is a pyramid. There may be other and various pyramidal forms, but they are not true pyramids. In stone architecture such a figure requires the edifice to be solid, or mainly so, and can furnish very little internal space for any practical use. It is therefore a style of building which is itself something peculiar and quite unfitted to any of the ordinary purposes for which man erects edifices.

But not all pyramids have the same relative proportions or degree of slope in their sides. In this respect the Great Pyramid stands alone among all other pyramids or buildings on earth. Plato says, that "God perpetually geometrizes," and this pyramid presents a clear and solid geometric figure with all its proportions conformed to each other.

Science has frequently alluded to a certain triplicity or triunity of nature, assuming something of the character of a law of creation, and traceable as a sort of pervading analogy of Providence. Poets, those close observers and portrayers of nature, have likewise referred to it. The crust of the earth is composed of a grand triplicity of primary, secondary, and tertiary stratifications. Comte beheld the laws of mind as made up of supernatural,

metaphysical, and positive stages in mental evolution. Burke thought he saw a parallel between mythology and geology, and classified the former according to the three stages of the earth's formation. A modern chemist reduces all the properties of matter to attraction, repulsion, and vitality. And a late attempt to give "a basic outline of universology," comprises all things in unism, duism, and trinism. Without accepting these things as settled truths, they yet serve to show a primary something, which, to the most observant minds, bespeaks an original triplicity, putting itself forth as a rudimental law. And if the Great Pyramid was really intended to symbolize the universe, we would also expect to find in it some recognition of this triplicity or triunity. Accordingly we do find this to be the fundamental figure of the Great Pyramid, which is at the same time the geometrical skeleton of the earth, if not also of the whole physical and spiritual universe.

It was a great achievement of our science to ascertain that the earth is a revolving globe. But this spherity is the mere clothing of a mathematical figure to which it is formed. As a revolving body, the earth has an *axis of rotation*, that is, it makes all its revolutions in

one and the same unvarying direction, indicating a primary straight line through its centre to its poles. Using this as a base line, which it is in fact, and drawing two equal lines from the surface at the poles to the highest point of surface at the equator, the result is one of the simplest compound figures in geometry—*a triangle*—just what we have in the outline figure of the Great Pyramid, and in each of its four faces.

Examining this figure more closely, still other remarkable properties appear. Viewed as a triangle, if we square its base line, as squared in fact in the Great Pyramid, and add together the lengths of the four sides, we have the exact equal of a circle drawn with the vertical height for a radius. In other words, we have here a figure of the framework of the earth, and that figure possessed of the proportion which is known to mathematicians as the π proportion,—thus presenting a practical solution of that puzzling problem which has cracked so many mediæval and modern brains, to wit, the quadrature of the circle. Hence John Taylor says of the builders of the Great Pyramid, that "they imagined the earth to be a sphere, and as they knew that the radius of a circle must bear a certain proportion to its

circumference, they built a four-sided pyramid of such a height in proportion to its base, that its perpendicular would be the radius of a sphere equal to the perimeter of the base."

The other pyramids have the same general form copied after this, but these mathematical proportions and signs of high intellectuality appear nowhere but in the Great Pyramid. And when Jomard says, "The pyramids have preserved to us the certain type of the size of the terrestrial globe," he utters a great truth, but what is not true in any definite measure save of the Great Pyramid.

Pyramid Numbers.

The peculiar figure and shape of the Great Pyramid fixes a certain system of numbers. It has five corners: four equal corners at the base and one unique corner at the summit. Hence it has five sides; four equal triangular sides and the square under-side on which it stands. Here is an emphatic count of *fives* doubled into the convenient decimal. This count is so inherent and marked as to be a strong characteristic, calling for the number *five*, and multiples, powers and geometrical proportions of it, as loudly as stones can be made to speak.

From this also it would seem to have its name. Though different authors have sought to derive this word from the Greek, Arabic, and other sources, the evidence is rather that it came direct from the builders of the edifice, and was meant to describe it in the common language then used in the country. The nearest to that language is the Coptic. And in the ancient Coptic, *pyr* means *division*, the same as *peres* in Daniel's interpretation of the handwriting on the wall; and *met* means *ten*. Chevalier Bunsen, without thought of combining them for the derivation of the word *pyramid*, gives these words separately and affixes to them these significations.* And putting them together—*pyr-met*—we have the name given to this structure. And that name, in the language of the ancient Egyptians, means *the division of ten*.

Accordingly a system of *fiveness* runs through the Great Pyramid and its measure references. Counting five times five courses of the masonry from the base upwards we are brought to the floor of the so-called Queen's Chamber. The measures of that chamber all answer to a standard of five times five inches

* See Egypt's Place in History, vol. i, p. 477, and vol. iv, p. 107.

It is characterized by a deep sunken niche in one of its walls, which niche is three times five feet high, consisting of five strongly marked stories, the topmost five times five inches across, and its inner edge just five times five inches from the perpendicular centre of the wall into which it is cut. So if we count five times five courses higher, or ten times five from the base, the last brings us on the floor of the King's Chamber, whose walls are composed of twenty times five stones, arranged in five horizontal courses. The base line of the lowest course is five inches below the level of the floor, and with these five inches off, this course embraces a space just ten five times the cubic contents of the Coffer. Above the King's Chamber are five chambers of construction, and the Coffer itself has five solid external sides.

This intense *fiveness* could not have been accidental, and likewise corresponds with the arrangements of God, both in nature and revelation. Note the fiveness of termination to each limb of the human body, the five senses, the five books of Moses, the twice five precepts of the Decalogue. But this is not all. Science now tells us that the diameter of the earth at the poles is five hundred millions of units, about the length of our inches. Five times

five of these units or inches is the twice ten millionth part of the earth's axis of rotation Ten times ten of these units or inches counted for a day, when divided into the united lengths of the Great Pyramid's four sides, give the exact number of days in the true year. As near as science has been able to determine the mean density of the earth (5.70), five cubic inches of it weighs just the fifty times fiftieth part of the Coffer's contents of water at a temperature of one-fifth of the distance which the mercury rises from the freezing to the boiling-point.

Nine is another number very specially marked in the Great Pyramid, particularly in its sunward portions and tendencies. Its practical shaping is nine to ten. For every ten feet that its corners retreat diagonally inwards in the process of building they rise upward or sunward nine feet.* At high noon the sun shines

* From this 10,9 shape of the Great Pyramid there results also important confirmation of the measurements of the base side and height. "The side angle computed from it amounts to 51° 50′ 39.1″; the π angle being 51° 51′ 14.3″; and the angle from Mr. Taylor's interpretation of Herodotus, or to the effect of the Great Pyramid having been built to represent an area on the side equal to the height squared 51° 49′ 25″. The vertical heights in pyramid (earth-commensurated) inches are at the same time, using the same base side length for them all by the 10,9 hypothesis, 5811; by the π hypothesis 5813; and by the

on all five of its corners and four of its sides, counting nine of its most characteristic parts. The Grand Gallery is roofed with four times nine stones, and the main chamber with exactly nine. And here again we have a nature reference which nations have expended millions to ascertain. The vertical height of the Great Pyramid multiplied by 10 to the 9th power (10^9) tells the mean distance of the sun from the earth, that is one thousand million times the pyramid's height, or 91,840,000 miles.

The sun-distance used to be put down by astronomy at nearly 96,000,000 miles. Later computations, at the opposition of Mars in 1862, reduced this estimate to between ninety-one and ninety-three millions. The results of

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Herodotus-Taylor hypothesis 5807." The nearness to identity of the results of such diverse methods amply proves that the assumed measure of each base side, by taking the mean of all the practical measurements between the sockets, cannot be far from the true measure laid out by the architects, and hence a just foundation on which to proceed in any calculations or conclusions that may result. Those who are disposed to rid themselves of such conclusions on the ground that we do not know with sufficient accuracy what is the length of the pyramid's base sides, ought to consider these remarkable facts, and meet them in a fair and scientific way, or else admit that there is no such vitiating uncertainty as they too fondly assume without being able practically or by any process to prove that our figures are false.

the observations of the transit of Venus in 1874 have confirmed these lower figures, making the limit of uncertainty to lie between ninety-one and ninety-two and a half millions. Taking the mean of the estimates as the best that modern science has been able to present, we have a very close agreement with the Great Pyramid's symbolizations. And when science has once definitely settled the point, there is now every indication that the figures will agree precisely with what was not only known to the architects of this pyramid, but was by them imperishably memorialized in stone more than 4000 years ago!

All this proves not only intelligent design on the part of these builders, but an acquaintance with nature, and a genius for the expression of nature's truths in the forms and measures of a plain, simple, and enduring structure, which any less attainment than that of our greatest living astronomers and *savants* could not so much as understand.

Size of the Great Pyramid.

The opinion was given by Lepsius, and from him has been largely accepted as a law in Egyptian pyramid building, that each king, when he came to the throne, began to excavate

a subterranean chamber with an inclined passage, which chamber was meant for his tomb; the first year he covered it with a few squared blocks of stone, the next added more, and so continued till he died, leaving it to his successor to finish and close the edifice. Hence the size of each pyramid would depend upon the accident of the duration of the king's life. Perhaps it was so after pyramids came to be a fashion, though some long-lived kings have only small pyramids. But it is very certain that the Great Pyramid did not *grow* in this way. Its whole character was calculated and determined beforehand. The drafts of its architects still exist, graven in the rocks, as Job wished that his words might be in order to last forever. There they are in the immediate vicinity of the great building, the projection of whose shape and features, without and within, they still show to every one who wishes to examine them. By them it is proven that the whole structure in its angles and mathematical proportions was contemplated and designed from the start.* Besides, the subter-

* "These azimuth trenches are a sort of large open ditches spread about here and there on the surface of the hill, before the eastern face of the Great Pyramid, and not very noticeable except for their relative angles in a horizontal plane; for these gave me the idea at first sight of being strangely similar to the

ranean chamber of the Great Pyramid which this "law" would require to be finished first

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dominant angles of the exterior of the Great Pyramid. To determine whether this idea was true or not, I determined to measure all the angles rather carefully." "Most happily, too, every part of them which has to enter into the measurement, still exist visibly and tangibly; so that good painstaking modern observation is perfectly able of itself, either to prove or disprove what has just been advanced," *i.e.*, their correspondence to the angle of the foot of the Great Pyramid.—"Life and Work at Great Pyramid," vol. ii, p. 125, vol. iii, p. 28.

"For several reasons I consider these trenches have been originally incised for instructing the masons in the exact angular character of the very mathematically formed building they were engaged on, and while the work was in progress."—"Antiquity of Intellectual Man," p. 192.

"If you take the Great Pyramid as it was when in masonry progress or without its final casing film, and if from the centre of the then base you draw its proportion π circle, the conjoined axes of north and south azimuth trenches will form a tangent to that circle at its most protuberant point in front of the middle east side. And further, if from the points toward the north and south extremities of the east side of base where the π circle cuts into the area of the base you draw rectangular offsets from that side eastward, these offsets will be found to define the places of the admirably square cut outer ends of both north and south azimuth trenches with as much accuracy as the present standing and broken sides of the pyramid admit of in their measurement."—Mr. W. Petrie, quoted by Prof. Smyth.

Besides these trenches there is also a system of inclined tunnels cut into the rock of the hill, which some have taken to be the remains or the commencement of another pyramid of small size. But Prof. Smyth found them arranged on the same principles contained in the Great Pyramid, and only in it. He says of them: "There is a long descending entrance passage, an upward and opposite rising passage from the middle of that like the Great Pyramid's first ascending passage; then the

is just that part which never was finished at all. It is only half cut out,—a mere pit without a bottom. Herodotus also gathered from the Egyptians themselves that ten years were spent in building preparatory works, which are hardly less remarkable and elaborate than the pyramid itself, and that everything was organized on an immense scale, keeping 100,000 men continually at work, relaying them every three months. Furthermore, all the searchings into this pyramid have failed to reveal any signs of the patching of one year's work to that of another, or any arrangements for such a contingency as the possible death of the king before the work was complete. On the contrary, everything argues one continuous

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beginning of a horizontal passage like that to the Queen's Chamber, and finally the commencement of the upward rising of the Grand Gallery with its remarkable ramps on either side. The angles, heights, and breadths of all these are almost exactly the same as obtain in the Great Pyramid." They are evidently the experimental models, cut beforehand into an unneeded part of the hill, giving the plan to which the Great Pyramid was to be wrought, and to which the builders have accurately conformed the mighty structure. Here, then, in these trenches and tubes we still find the plans and drawing to which these ancient masons worked, both of the outside angles and the inside arrangements. We cannot conceive that these vast and still enduring charts giving the features of the Great Pyramid in all its greatness would thus have been cut if the whole work had been conditioned to the uncertainty of the duration of the king's life. Osburn entirely repudiates Lepsius's "law of pyramid building."

and fore-calculated job, evenly carried through from beginning to end, just as a farmer would build his barn or a baker his oven. Hence if there is anything in Lepsius's "law of pyramid building," the Great Pyramid never came under it, but received its being and dimensions from a foregoing plan of the whole, pursued from commencement to completion without interruption or any thought of it.

An immense amount of careful endeavor has been expended by different men at different periods to ascertain the precise measurements of the Great Pyramid's base sides. And since the discovery of the corner sockets it would seem as if there should be no difficulty in arriving at exact data on that point. But the length to be measured is so great, and the mounds of rubbish lying between the points from which the measure is to be taken are so immense and irregular, that absolute certainty has not been reached and cannot be till some rich man, society, or government performs the work of removing the impediments and opens a clear way from corner to corner. The measurements thus far made from these sockets by scientific men give us a mean of nine thousand one hundred and forty of our inches as the length of either of the Great Pyramid's

four sides, that is, a fraction over seven hundred and sixty-one and a half feet, or nearly one-sixth of a mile.*

With this measure for the base of the sides, and the angle of 51° 51′ 14″ for their slope, the lines intersect in a point of perpendicular altitude five thousand eight hundred and nineteen inches from the level of the pavement discovered by Colonel Vyse. But there are other ways of ascertaining the height. By the barometer, by trigonometry, and by the actual measurement of the heights of the two hun-

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* The following is a list of these measures:

The French savants in 1799, north side only,	9163	Eng. inches	
Colonel Howard Vyse in 1836, " " "	9168	"	"
Mahmoud Bey in 1862, " " "	9162	"	"
Aiton and Inglis in 1865, mean of four sides,	9110	"	"
English Ordnance Surveyors in 1869, mean of four sides,	9130	"	"
Mean of the five,	9144	"	"

The Aiton-Inglis measuring was repeated four times, and the mean given is that of the four measures, which would justly entitle this figure to more weight than simply as one of the five. Very moderately weighting it beyond the rest gives us the general mean of nine thousand one hundred and forty inches, with a small margin of possible error on either side. It is greatly to be regretted that we cannot refer to absolutely certain figures, and so shut out all possible cavil; but as the matter stands, the most reasonable and scientific way of estimating the truth is that of taking the properly weighted mean of the several very competent measurers, each anxious to be exact, and one as liable to be too high as the other too low.

dred and two remaining courses of the masonry, the elevation to the present plateau at the top can be taken. And by eight of the most distinguished measurers who have performed the operation, from Jomard and Cecile to Aiton and Inglis, the mean comes out five thousand four hundred and forty inches. Prof. Smyth makes it five thousand four hundred and forty-five. Each side of the present summit area is four hundred inches. Adding one hundred inches, the thickness of the casing stones, to each side, the square would be six hundred inches on each outer line. At the angle of 51° 51′ 14″ this would give a vertical height of three hundred and eighty-two inches, yielding $5440 + 382 = 5822$ of our inches as the full original height of the Great Pyramid. The same estimate is confirmed on other and independent methods of computation; thus also confirming the estimate of the length of the base sides, the one process yielding within three inches of what is reached by the other.

Within a narrow margin of uncertainty in which actual measurement always differs from absolute mathematical exactness, we may therefore take it as reasonably settled that the Great Pyramid's sides are each nine thousand one hundred and forty of our inches long, and

slope upward to a point originally five thousand eight hundred and twenty of the same inches in perpendicular height above the line of the pavement below. This gives us the vastest and highest stone building ever erected by human hands.*

Osburn says, "its long shadow darkens the fields of Gizeh as the day declines," and that "when the spectator can obtain a distinct conception of its vastness no words can describe the overwhelming sense of it which rushes upon his mind. He feels oppressed and staggers beneath a load," to think that such a mountain was piled by the handiwork of man.

Standard of Linear Measure.

From these measurements of size result the π proportion which is now admitted to be practically exhibited in this pyramid, whether

* The highest cathedrals in the world are Strasburg, five thousand six hundred and sixteen inches; Rouen, five thousand five hundred and sixty-eight; St. Stephen's, Vienna, five thousand two hundred and ninety-two; St. Peter's, Rome, five thousand one hundred and eighty-four; Amiens, five thousand and eighty-eight; Salisbury, four thousand eight hundred and forty-eight; Freiburg, four thousand six hundred and twenty; St. Paul's, London, four thousand three hundred and thirty-two. The Cathedral at Cologne was meant to be higher, but never has reached this height, neither has any other known tower. The oldest standing edifice in the world is thus the highest by far.

there by accident or by intention. The width is $\frac{7}{22}$ or $\frac{1}{7}$ of the height, and each face is almost exactly the square of the height.

From such high science we are also led to expect the record of some definite standard of measure, which every one would naturally wish to learn of from such wonderful architects and geometricians. Standards of measure are also just now a subject of special interest. There has come a singular disturbance and doubt on the part of legislators and *savants* as to what ought to be the ultimate reference or basis for all measures of length. The nations are inquiring, and nobody seems to know on what to rest. The French metres are unfortunately being urged by many as the most scientific known.

Nearly one hundred years ago the French people, in their first revolution, made an attempt to abolish alike the Christian religion and the hereditary weights and measures of all nations, seeking to supplant the former by a worship of philosophy and liberty, and the latter by a new scheme of metres. For their unit and standard of length they took the quadrant of the earth's surface at the particular meridian of Paris, divided it into ten million parts and so obtained the metre of 39.371 inches now

so highly eulogized. To say nothing of the origin and motive of such a standard, the science that is claimed for it is of no high character. It has the misfortune of taking a *curved line* drawn on the earth's surface, and that at a particular meridian no more fitting than any other, instead of some straight line invariable for all the earth. Besides, in estimating for the earth's elliptic meridian at Paris these atheistic *savants*, as now proven, miscalculated to the extent of one part in every five thousand three hundred too little, and so on their own basis their lauded unit of length is not scientifically true. Sir John Herschel rightfully pronounces it "the newest and worst measure in the world," and Beckett Denison justly regards it as an "inconvenient, inaccurate, and *unstridable* measure." What men need is a universal standard afforded by nature, and serving alike for all mankind. For such a standard M. Callet, in 1795, in his book on Logarithms, suggested the axis of the earth, the even ten millionth to be taken as the standard with which to compare all distances and lengths. It was a grand thought, far in advance of all modern science on the subject. The axis of the earth has every philosophic and æsthetic reason in its favor as the great

terrestrial reference for all our linear measurements. It is a *straight line*, the only unvarying straight line which terrestrial nature affords, and the same for all localities and all time. It is the base line to which the earth itself is framed. And as remarked by Sir John Herschel, so long as the human mind continues human and retains a power of geometry, such a line will be held of far superior importance to any part or degree of a circumference. And if any *axis* is to be chosen on which to found a scientific unit, the nature of things gives an absolute and indefeasible preference to the *polar* axis. Now this is precisely the standard of reference for linear measure which the Great Pyramid places before us.

The polar diameter of the earth, according to the best science, is 500,500,000 of our inches, within so small a limit of possible error as to make but little difference in so multitudinous a subdivision. The British ordnance survey gives the results of two methods of computation, one of which makes it 500,428,296, and the other 500,522,904 of our inches, the former being considered as having the preponderance in weight. The mean of the two

would therefore be close about five hundred millions five hundred thousand of our inches; and this is what Beckett Denison in his *Astronomy* gives as the result of the most reliable modern calculations.

Taking the even five hundred millionth part of this, we would have 1.001 of our inches. Suppose, then, that we free this even division of the earth's polar diameter from all fractions, and call the five hundred millionth part of that axis *one inch*. We would thus have a low and convenient unit of length, about half a fine hair's breadth longer than our present inch. So complete and even a deduction from the polar axis of the whole earth would certainly be the grandest, the most rational, and the most natural *standard of length* to be found in or on our globe. Twenty-five of these inches, that is, 25.025 of our inches, would then serve for a cubit or longer standard, evenly deduced, which, multiplied by 10^7, would tell the exact distance from the centre of the earth to either pole. It would be the ten millionth part of the semi-axis of the globe we inhabit. And what is more, it would be the exact *sacred cubit* which God himself gave to His people of old, and

by which He directed all the sacred constructions and their appurtenances to be formed.*

And these sublime earth commensurating standards of length are precisely the ones set forth in the Great Pyramid. Whether the practical working measure was in general the Egypto-Babylonian cubit of about twenty to twenty-one of our inches or any other makes no difference. The evidences are clear that *a cubit* of 25.025 of our inches, or one within a very slight fraction of that length, and *an inch* which is the five hundred millionth part of the earth's polar diameter, were in the minds of the architects, and meant by them to be most significantly emphasized.

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* Some have doubted whether the Jews, either before or after the Exodus, ever had a special cubit of this kind. But that they had, and that the same was a Divinely given and authorized length measure, is so clearly deducible from the Scriptures and the Jewish writings in general that there ought to be no question about it. Sir Isaac Newton, in his "Dissertation on Cubits," has brought this out so conclusively as to leave but little else to be desired. By five successive methods he also deduces the limit of its length as in no case less than 23.8 or more than 27.9 of our inches. The mean of all his numbers amounts to 25.07 of our inches, with a possible error on the one side or the other of one-tenth of an inch. That the Hebrews, then, had a peculiar and sacred cubit wholly separate from all other cubits, and that it was the even ten millionth part of the semi-axis of the earth, we may accept and hold on the authority of one of the greatest minds and one of the most thorough and competent investigators of such a matter that has illuminated our modern times.

It is a noble and fitting thought that as the existence of an axis of rotation in the earth *makes* the days, the grand standard of length founded on that axis should *count* them. And so it is in the Great Pyramid. This nature-derived cubit is contained in each side of this edifice just as many times as there are days in a year! This simple fact is of itself an invincible demonstration that these builders had such a length in mind as their greatest and most sacred standard and enumerator of linear measure. But it is also specially singled out and recorded elsewhere in the edifice. It is measured by the grand niche in the Queen's Chamber, in the distance between the highest inner edge of that niche and the vertical centre of the chamber. It is thus set before the eye as if to teach all to note its existence and to search for its hidden use and meaning in the symbolizations.

As to the inch or the one-twenty-fifth of this measure, being an integer of the grand day counter, it, too, is indicated in the right place and in the right way. It is contained separately and independently in the entire perimeter of the Grand Pyramid's base, just one hundred times for each day of the year. As the low unit of count in measure, it is also the repre-

sentative of a year in the reckoning of the passage floor-lines as charts of history, as also in the diagonals of the pyramid's base taken as a measure of the precessional cycle. It is likewise specially exhibited in connection with the cubit in the singular boss of the suspended "granite leaf" in the anteroom to the King's Chamber.* Besides, when multiplied by 10^{7+4} it serves to tell in round decimals the distance through space which the earth travels in each complete revolution on its axis, that is 100,000,000,000 inches.

A standard of length measure is thus exhibited which fits with grand evenness to nature in her great facts, but no less beautifully with what is common and homely. We used to be taught that the inch is made up of so many

* Captain Tracy has pointed out that the pyramid's earth-commensurated cubit is exhibited on this *boss* of the granite leaf divided into fives, for it is just one-fifth of that cubit broad, and the thickness of the *boss* is again just one-fifth of its width We thus have the earth-commensurated *inch* and *cubit* exhibited together, five times five of the one constituting the other. This *boss* again is just one of these inches aside from the centre of the block on which it is, and the distance from its centre to the eastern end of that block in its groove is just one cubit of twenty-five of these inches. Rev. Glover re-examined the measures of this *boss* in 1874 and says: "I find it most fairly confirmatory of the entire of the sacred cubit and its divisions, giving the inch elevation and the five-inch span with an inch base for the side slope; on the boss itself there is no indication whatever of any irregularity of shape."—CASEY'S "Philitis," p. 40.

barleycorns. That reference, I believe, has been expunged from our arithmetic tables, because our mathematicians have lost the knowledge and meaning of our hereditary unit of length. But such is the fact, which any one can test for himself, that if we start with the average length of the grains from which man gets his bread, or with the average breadth of a man's thumb, length of arm, or reach of step in easy walking, everything comes out closely even with these earth commensurated and Divinely approved standards of length, and with these alone.

Weight and Capacity Measure.

And as these great old architects *measured* the earth, so they also *weighed* it. As nearly as can be computed, their pyramid is the even one thousand billionth part of the weight of this whole earth-ball of land and sea. The gravity of the entire mass of what they built needs only to be multiplied by $10^{5\times3}$ to indicate the sum of the gravity of the entire mass of the globe we inhabit.

There has been much effort expended by modern science to find out the mean density or specific gravity of the earth, without exactly settling the problem. The best experiments

make it between 5.316 and 6.565 times the weight of water at the medium temperature of 68° Fahrenheit. The Great Pyramid makes it 5.70, which is almost exactly the mean of the best five experiments ever made.*

A further memorial of the same is furnished in the Coffer of the King's Chamber, in whose structure the same π proportions of the pyramid itself reappear in another form. The

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* These experiments as given in "Johnson's New Universal Cyclopædia" (Art. Density of the Earth), are the following:

Colonel James's Observations with Arthur's Seat,	5.316
Prof. Airy's Mine Experiments,	6.565
Cavendish Leaden Globe Experiment,	5.480
Reich's Experiments,	5.438
Baily's Experiments,	5.660
Mean of all the results,	5.672
Difference from pyramid,	.028
Pyramid expression,	5.700

It thus appears that the pyramid's figure for the earth's density is much nearer to the mean of the experiments than the experiments are to each other.

Computing the earth's bulk at a mean gravity 5.7 times that of water, according to the calculation made by Mr. Wm. Petrie, of London, the figures stand thus:

Pyramid's mass in tons, 5,272,600.

Earth's mass in tons, 5,271,900,000,000,000,000,000.

The accurate calculation of such immense masses of matter must necessarily be very rough; but the results come out evenly enough to show that 5.70 is the proper figure for the pyramidic estimate of the mean density of the earth, and that the pyramid was meant to be of such weight that it should be to the whole weight of the earth as 1 to $10^{6\times 3}$.

internal capacity of that Coffer by the nicest possible computations is seventy-one thousand two hundred and fifty cubic pyramid or earth-commensurated inches. The only intelligible reason for that particular *capacity* is to be found in the combination of a capacity and weight measure standard, having reference to the size and gravity of the earth, with that gravity computed at 5.7. Even the long-unobserved little irregularities of that Coffer come in as a necessary modifying element to meet precisely the earth reference formula. On the pyramid system of *fives*, 50^3 earth-commensurated inches multiplied by the earth's specific gravity and divided by 10, represent with close exactness the Coffer's interior space.

To the reality of these earth references at the valuations given, this Coffer comes in as a seal, and at the same time furnishes a grand standard of united weight and capacity measure. At the rate of 5.7 for the mean density of the earth, the Coffer's contents of water at 68° Fahrenheit would be equal to twelve thousand five hundred cubic inches of the body of the earth. Dividing this into two thousand five hundred equal parts for a small fraction in the dominant pyramid number we have an even result equal to five cubic inches

of the earth's mean density, which would be the pyramid or earth-commensurated *pound*, which is, within a small fraction, the same as *our common avoirdupois pound*, equal in weight to a pint, 5×5.7 cubic inches of water at a temperature of 68° Fahrenheit.

The Coffer and the Ark of the Covenant.

The only article of furniture in all the Great Pyramid is this Coffer in the King's Chamber. Al Mamoun found it a lidless, empty box, cut from a solid block of red granite, and polished within and without. In shape it is an oblong rectangular trough, without inscription or ornament, and of such size that it could not possibly have been taken in or out of its place since the pyramid was built. Its proportions are all geometrical. Its sides and bottom are cubically identical with its internal space. The length of its two sides to its height is as a circle to its diameter. Its exterior volume is just twice the dimensions of its bottom, and its whole measure is just the fiftieth part of the size of the chamber in which it stands. Its internal space is just four times the measure of an English "quarter" of wheat. By its contents measure it also confirms Sir Isaac Newton's determination of the length of the

sacred cubit of twenty-five earth-commensurated inches. The holy Ark of the Tabernacle and the Temple, according to the Scriptures, was two and a half cubits long, and one and a half broad and high. This must be outside measure, as the records speak of *height* and not of *depth*. With twenty-five earth-commensurated inches to a cubit, and allowing 1.8 of these inches for the thickness of the boards, its internal space would be seventy-one thousand two hundred and eighty-two of the same cubic inches, or within thirty-two of the number of such cubic inches in the capacity measure of the pyramid Coffer. Or allowing 1.75 inches for the thickness of the sides and ends and two inches for the bottom, the inner cubical contents would be seventy-one thousand two hundred and thirteen inches, or within thirty-seven of the Coffer. The mean of these two estimates, which must include all reasonable suppositions for the carpentry of the ark, would be seventy-one thousand two hundred and forty-eight cubic inches, which is within two inches of the best computation of the internal dimensions of the pyramid Coffer. That they should be thus alike in internal measure, the dimensions of the one having been specially laid down by God himself, is very remark-

able, and that the two should thus mutually sustain each other in the recognition of one and the same earth-commensurated cubit, is both striking and significant. Nay, using this same earth-commensurated cubit as identical with the sacred cubit, the further result appears that the Jewish laver and the Ark of the Tabernacle were the same in capacity measure with the pyramid's Coffer, and that Solomon's molten sea was just fifty times the capacity of either of these and exactly equal in interior cubic space with the King's Chamber itself.

Temperature.

As the Great Pyramid stands on the line which equally divides the surface of the northern hemisphere, there is at once a close approach of its climate to the mean temperature of all the earth's surface, at least of every habitable land and navigable sea. According to the French *savants*, by observations both in and outside of the Great Pyramid, that temperature is about 68° Fahrenheit. A permanent and unvarying record of this temperature is maintained in the pyramid's granite chamber, which is so buried in masonry as not to be affected by external changes, and furnished with a system of ventilating tubes to keep every-

thing exactly normal within. This degree of temperature is exactly one-fifth of the distance which mercury rises in the tube between the freezing and boiling-points of water, and furnishes the basis for a complete nature-adjusted pyramid system of thermal measure. Dividing this one-fifth by the standard of fifty (the room in which the index of temperature is arranged being the chamber of fifty), we have the even two hundred and fifty for the degrees between the two notable points of nature marked by the freezing and boiling of common water. Multiplying this by four, say the pyramid's four sides, we are brought to another great natural heat-mark, namely, that at which heat begins to give forth light, and iron, the commonest of metals, becomes red. Then multiplying again by five, say by the number of the pyramid's five corners, the result comes out evenly at another grand nature-marked point of thermal measure, namely, that at which heat shows whiteness, and platinum, the densest and most refractory of metals, melts.

A Metrological Monument.

Thus the Great Pyramid proves itself abundantly competent to determine on a natural and most scientific basis all measures of length,

weight, capacity, and heat. Even the degrees in the circle if arranged on the pyramid numbers, say one thousand degrees instead of the fractional Babylonian three hundred and sixty, some think, would be vastly more natural and easy than it is. This would divide the quadrant into the convenient two hundred and fifty with even tenths for minutes and seconds, whilst it would at the same time harmoniously commensurate with navigation and itinerary measures of knots and miles, into which it is now so troublesome to translate from the indications of the sextant.

There would seem, therefore, to be nothing wanting in this mighty monument of hoar antiquity for the formation of a metrical system the most universal in its scope, the most scientifically founded in its standards, the most happily interrelated, and the most easy in its common use that ever was presented to the contemplation of man or that can be employed for our earth purposes. And it is devoutly to be wished, if the present agitation of the human mind with regard to standards and systems of measure is to result in any changes for the nations, that they should be in the line of what Providence has thus set before mankind. Great Britain, the United States,

the German Empire, the Scandinavian Kingdoms, and other principalities and countries, have this system already almost exact in some departments, descended to them they know not from whence, and the correction of what is faulty would be attended with infinitely less discomfort than the introduction of French metres, conceived in rebellion against the common faith and order of the Christian world. We would then have the high consciousness of possessing a system of metrology the most ancient and the most self-consistent in the world, and one in most profound accord with nature as God made it, if not communicated by the great God of nature by direct inspiration from His eternal wisdom.*

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* We subjoin a table of units and standards of this system the better to set it before the eyes and understandings of those disposed to investigate its elements.

I. Linear Measure. The grand standard for this is the earth's axis of rotation, the sacred cubit of Noah, Moses, Solomon, and the Great Pyramid, the shortest distance from the centre of the earth to either pole divided by 10^7, which is equal to 25.025 of our inches. The table would then run as follows:

3 barleycorns	= 1 inch or thumb-breadth.
25 inches	= 1 cubit, arm-length, or pace.
100 cubits	= 1 acre side.
25 acre sides	= 1 mile.
4 miles	= 1 league.

II. Weight and Capacity Measure. The grand standard for this is the mean density of the earth at 5.70 times the

The Pyramid's Astronomy

Nor are we any less impressed with the singular wonderfulness of this ancient pillar, when we come to look more directly at its astronomy.

Figuring the framework of the earth as a triangle formed from a line of diameter, and referring to an axis for a basis for this triangle as well as a grand standard of measure, and that triangle being greater in vertical height by

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weight of water at 68° Fahrenheit (50° pyramid), barometrical pressure 30 inches of preceding table. Hence 5×5.7 ($= 28.5$) cubic inches of this water, being the 2500th part of the cubic contents of the Coffer, give us a pyramid pint $=$ a pyramid pound; the pint being 0.987 of the old British wine pint, and 0.836 of the old French "chopine;" and the pound 1.028 of the present pound avoirdupois, and 1.050 of the old French "poids de marc." This pound or pint evenly divides by tens to grains and drops, and multiplies evenly by 10, 2.5, and 4 to tons and chaldrons. The correlation would then be 1 drop $=$ 1 grain, 1 pint $=$ 1 pound, 1 cwt. $=$ 1 bushel, etc.

III. Thermal Measure. The grand standard for this is the mean temperature of the earth in which man works with most ease and comfort, 68° Fahrenheit, 20° Centigrade.

0, zero, the freezing-point of water.
50, mean temperature of the whole earth.
250, boiling-point of water.
1000, the point at which heat reddens iron.
5000, white heat, at which platinum melts.

duplication than would equal the width of its base, the earth is necessarily contemplated as a spheroid—a globe thicker at the equator than at the poles—just as all correct astronomy now represents it. Modern science ascribes the discovery of this spherity of the earth to Thales, six hundred years before Christ; but here it is more perfectly represented than Thales ever knew, more than fifteen hundred years before Thales was born.

A fixed axis would also seem to imply the idea of rotatory motion. And the making of the sides of the pyramid to record an even fraction of the earth's axis of rotation just as many times as there are days in the year, proves that these builders had an idea of both motions of the earth, and a knowledge of the number of times it revolves on its own axis in making its annual revolution around the sun. This latter motion they also further symbolized by the inches or fractions of twenty-five in their great standard of length, just one hundred of which to a day, for the number of days in the year, are contained in the perimeter of the pyramid's base. If any one within historic times prior to Copernicus and Galileo really understood this feature of our globe, it certainly was not well known nor much be-

lieved till after these men had lived; and yet, here it is distinctly and truly symbolized more than thirty-five hundred years before their time.

These ancient architects also knew where to find the poles of the earth, since they were able to determine latitude and what degree of latitude marks the half-way of the world's surface between the equator and the poles. This they prove to us by having built their pyramid on that line of latitude, namely, on the thirtieth north. It is, in fact, a slight fraction south of that line as now estimated, but obviously intended to indicate that degree, since they built as closely to the northern brink of the hill as it was possible to go and yet secure a permanent foundation for their work. Nor is it much further from that line than the ranges of probable error in the best scientific calculations. By three distinct processes (by differences of zenith distance, by absolute zenith distances, and by transits in prime verticle) lately made to determine precisely the latitude of Mt. Agamenticus Station in Maine, each differed from the others, and the determination could not be made any nearer than somewhere within the fourth of a hundred parts of a second. This was close

enough for all practical purposes, but shows that the best science cannot be precisely exact on the subject. And yet, here we have a determination made more than four thousand years ago, in fact almost within the limit of error of the best scientific possibilities, and with the plain intimation of a better knowledge which had to be sacrificed to the requirements for a fitting basis to a building intended to last to the end of time.

These men have thus left us the memorial of a remarkable geodesy, which is further exhibited in the fact that they not only put their pillar in the very centre of Egypt, but on the pivotal balance-point of the entire land distribution over the face of the whole earth. A glance at any universal map makes this apparent, whilst we look in vain for another point on all the globe which so naturally and evenly marks the centre of equation for all inhabited land surface. There is here a measurement or consciousness of the extent and proportional relations and distribution of the earth's continents and islands, such as modern science has not yet furnished or even attempted to give.

There is perhaps no much better test of a sound, practical astronomy, than to be able to determine truly the four cardinal points. A

very simple and easy thing most persons would think it, but not so easy when brought to the test. The compass alone never can be depended on, except in a general way. The attempts of men to orient truly, even with the aid of science, have shown constant inaccuracy. It used to be thought a great matter to have churches and cathedrals built exactly east and west; but of all so intended scarcely one has been found that does not incline either to the north or the south of the line meant to be followed. It is the same even with buildings erected specially for astronomical purpose. Tycho Brahe's celebrated Uranibourg observatory is faulty in orientation to five minutes of a degree. The Greeks in the height of their glory could not find the cardinal points astronomically within eight degrees. But the builders of the Great Pyramid, out in the Lybian desert, with no guide or landmark but the naked stars, were able to orient their structure so exactly that the science of the wisest Athenian sages, eighteen hundred years afterwards, was seventy times, and the observatory of Uranibourg nearly four times, further out of the way than it is.

One of the most curious and important problems of astronomy is the sun distance, at

which men have labored so long and so earnestly without being able to solve it closer than within a limit of error embracing a million and a half of miles. That distance, however, is emphatically and definitely pronounced in the Great Pyramid, by its 10 and 9 of practical erection, as the even 10^9 times its own height, which is about the mean between the highest and lowest figures which the most recent observations have set down as the best results science has reached on this point.

The Pyramid's Chronology.

Time reckonings belong to the same subject. Things can have no place or being without *time*. And as measures of time are mere notations of motions in the clockwork of the universe, chronology and astronomy necessarily go together. And as the Great Pyramid memorializes the one, the other must also be embraced. Memorializing the revolutions of the earth on its own axis and around the sun, it thus at the same time fixes its notation of days and the year.

But there is another observable movement going on in the universe of a much grander and wider range, and of special importance with regard to chronology. It forms a sacred

clock, whose face is the sky, and from which we may read backwards or forwards for thousands on thousands of years without the possibility of confusion, the same as we read the hours and minutes on a timepiece. It is what astronomers call "the precession of the equinoxes."

There is a twofold year, one called the siderial year, or year of the stars, and the other the year of the sun or seasons, the equinoctial year. The former is a fraction longer than the latter. That is to say, the equinoxes in our ordinary practical year come a little earlier every time than the siderial time. This precedence in the equinoctial presentations amounts to about fifty seconds each year, and is hence called the precession of the equinoxes. It is really a retardation in the time of the rising and setting of the stars, by which they come about fifty seconds later every year. It was Hipparchus, about one hundred and fifty years before Christ, who first noted this within historic times; and since his day the rising and setting of the stars, as compared with the equinoctial or common year, has fallen back about thirty degrees from what their time then was. At this rate of retardation it takes about nine and a half millions of our days or about

twenty-five thousand eight hundred and sixty-eight of our years for this rising and setting to come back again to the exact point at which we begin the calculation. We thus have a great astronomical cycle, less than a fourth of which has passed since man was placed upon the earth. It furnishes a singularly valuable means of noting and determining remote dates. Knowing the relative places of the stars which most plainly mark this cycle, we can tell exactly how they stood in any year or date since time began; and knowing how they stood at the time of any given event, we can thus calculate the precise year almost to the day and hour in which that event took place.

Now if the Great Pyramid was meant to give us a symbolization of the physical universe, this grand year could not be overlooked, though science has been so long in finding it out. Nor has it been overlooked. It is all here plainly enough to be traced, just at the place and in the forms which we might expect. It is the greatest of nature's time-cycles, and its years would naturally be signified in the pyramid's lowest units of measure in the longest lines within the circle of its perimeter on which we read the days and years. The two diagonals of the Great Pyramid's base, taken

together, measure just as many inches as this cycle has years.*

It has only been since the times of Tycho Brahe that astronomers began to have any assurance in determining the length of this period. The latest and closest calculations by Bessel make it twenty-five thousand eight hundred and sixty-eight years, which is the sum of inches in the diagonal measures of this pyramid's base, more accurately given than it was known when Newton and Hutton wrote. It has been thought to weaken the idea of intention on the part of the architects thus to symbolize this cycle, since the measure of the diagonals is necessarily resultant from the lengths of the sides. But this interdependence of the diagonals and square in the pyramid's count of days, years, and the grand cycle of years, only proves that God has so constituted the motions of the heavenly bodies that a correct symbolization of one true count of nature involves the other, and that the

* A singular coincidence with this has been pointed out by R. A. Proctor. If we take the pyramid's cubits instead of its inches, and multiply the number of these cubits in a base side of the pyramid by the number fifty, and increase the result in proportion as the base diagonal exceeds the measure of the side, the sum comes out in the number of years in the great precessional period.

mind which governed in the framing of the symbol was conscious of the fact.

It is by means of this cycle, in connection with its star-pointings, that the Great Pyramid also tells the date of its erection. Sir John Herschel in 1839, assuming that its long, narrow, polished tubular entrance passage was meant to be levelled at a polar star, began to calculate back with what data he had to find the time when such a star was looking down that tube from the northern heavens. Nor did he fail to find one answering the conditions near about the time assigned by other methods as the probable date at which the Great Pyramid was built. Closer determinations of the exact pointings of the grand tube, along with other data, enabled other astronomers to repeat the calculation with more determinate results, fixing upon the year two thousand one hundred and seventy before Christ, as that in which this tube pointed to α Draconis, the then pole star, at its lower culmination, at the same time that the Pleiades, particularly Alcyone, the centre of the group, were on the same meridian above. And as this was a mark in the heavens which could not occur again for more than twenty-five thousand years from that time, and was itself very extraordinary, it has been

accepted as meant to be the sign of the date of the building of the Great Pyramid.

But what is thus astronomically made out is surprisingly corroborated in another way. These low tubular passage-ways prove themselves to be time charts also. They symbolize scrolls of human history as well as point out stars, and the notations in the one answer exactly to the other. The inch as a unit for a year also appears in these avenues. The entrance tube begins a record with the dispersion after the flood, and dates from the formation of nations. The history is a downward one under a dragon star toward a bottomless pit. Following this decline for about one thousand inches, which denote years, we reach the first upward passage. At that date the children of Israel, by special interposition of God, began their national economy and history. Following this ascending passage fifteen hundred and forty-two inches, the number of years from the Exodus of Israel to the birth of Christ, the last inch brings us to the beginning of the Grand Gallery, which sublimely symbolizes our Christian dispensation. Counting back, then, from the beginning of this gallery, that is, from the birth of Christ, 1542 inches to the entrance passage, and then

up the entrance passage 628 inches more (1542 + 628 making 2170, the astronomical date of the pyramid's building), at the precise point we find a distinct and beautifully cut line ruled into the stone sides of the passage from top to bottom, put there by the builders of the edifice.*

And that these lines were meant to mark the time of the Great Pyramid's erection, the indication is distinctly given. The joinings of the stones of which the sides of this passage are built are all at right angles with its incline, except in two instances. The exceptions are the first two joints preceding these lines.

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* The existence of these lines, as first reported by Prof. Smyth, has now been amply verified. Rev. F. R. A. Glover, on his way to India, in 1874, visited the Great Pyramid with some four or five others, and subsequently wrote from Cairo, under date of November 12th, "One of our party having quoted the opinion expressed by Sir Nelson Pycroft, 'that the story of these lines was all bosh,' I took care to let the party have ocular demonstration of their existence, and thus see the folly of the honorable baronet in declaring that 'these lines were not there, whatever Prof. Smyth or anybody else had said.' When I had showed the young gentlemen above named that the lines were there, I said to them, 'Now you see that however difficult it may be to distinguish them by superficial observers, *the lines are there*, and I shall ask you to confess now, and at all other times, that *you have seen them.*' To this they gladly consented; and so this story and this verification of *the reality of the lines* will be repeated as often as I shall be called on to speak of the matter."—Given in Casey's "Philitis," pp. 40, 41.

These, instead of being at right angles with the passage, are *vertical*, a figure of speech in stone plainly indicative of lifting up or building. And immediately after this signifying of the process of erection, comes these thin, fine, and beautiful lines, just two thousand one hundred and seventy inches from the beginning of the Grand Gallery, which, as the beginning of our dispensation would be the time of Christ's birth.

Thus, then, by a double method, each equally verifiable and distinct, and the one answering exactly to the other, the Great Pyramid tells its own age in time-marks as unmistakable as they are true to the mysteries of the sky and to the succession of events and dispensations on the earth.

And in the same way this remarkable pillar seems also to indicate the true date of the flood. If we count back from the date of its erection six hundred and thirty years, and inquire into the star-markings with regard to the precessional cycle at that period, we find the same pole star α Draconis looking down that same entrance passage as at the time of the building, but then *Aquarius*, the waterman, instead of the Pleiades is on the meridian above, the line crossing the very mouth of the vessel

whence the mighty stream is issuing. This could hardly have been without the knowledge of the designer of this edifice, and presents a very grand and remarkable time-mark. Can any one fail to have suggested to him what it indicates? All nations have preserved the tradition of it. The Scriptures refer to it again and again in the Old Testament and in the New. And the names and pictures of the constellations, as they still stand in our almanacs, unalterably point back to it. It is the great deluge of Noah's time, which the Great Pyramid thus locates chronologically at a point within a few years of the mean of the dates given for that event in the two different versions of the Scriptures, the Hebrew and the Septuagint, to wit, two thousand eight hundred years before Christ, and six hundred and thirty years before the building of the pyramid itself.

Septenaries and Sabbaths.

But time reckonings demand some special system of smaller fractions which cannot be made by mere decades, tens, or hundreds. The year and the day are such distinct and emphatic units of nature that man is compelled to observe them in his notations, and they will

not subdivide or multiply into each other by even decimals. The French *savants* tried it, but utterly failed, and after all their efforts were compelled to fall back upon the old week of seven days, which God himself ordained from the beginning of the world as the easiest and most practical system of ordinary time commensuration. We would therefore expect the Great Pyramid as a great symbol of nature to have some reference to this also. And in spite of its intense *fiveness*, it does not fail to present this easier and sacredly approved division of days into weeks of sevens. Having made so grand a reference to the Pleiades, or the *seven stars*, the elemental grouping of *sevens* at once comes in. Hence, the Grand Gallery is seven times the average height of the other passages, and its sides are built of seven overlapping stone courses on either side. So the passage which leads under it to the so-called Queen's Chamber has a section distinctly though differently marked off at its ends, either of which is the one-seventh of that passage's entire length. A septenary system is thus recognized and indicated.

But it is not simply septenary, but likewise *sabbatic*, at least as respects the Queen's Chamber and the way to it. There is a seventh

marked off from the six, and specially emphasized. The last seventh of the horizontal way to that chamber is deeply indented in the floor, so as to make the passage there about one-third higher than anywhere else. This alone would be decisive. But the chamber thus approached through a sabbatic avenue is itself the culmination of a sabbatic system. By reason of its peaked and two-sided ceiling it is a seven-sided room; and the amount of cubic space thus divided off above the square at the top is the high seventh of the cubic space contained above the distinctly marked base line which runs around the room at the height of the passage conducting into it. It is thus a completed sabbatism founded on a sabbatism in the way by which it is approached. We thus have all the features of the Hebrew sabbatic system emphatically pronounced and most remarkably built into the rocky structure of this pyramid more than six hundred years before Moses and the giving of the law,—a system of which the Gentiles as such knew little or nothing, though practically observed by the Creator himself in the great week in which the world was made. And by this intense sabbatism we are doubtless to identify this part of the pyramid with the Jew, the

same as we identify the Grand Gallery with the Christian dispensation.

The Centre of the Universe.

But there is a yet grander thought embodied in this wonderful structure. Of its five points, there is one of special pre-eminence, in which all its sides and upward exterior lines terminate. It is the summit corner, which lifts its solemn index-finger to the sun at midday, and by its distance from the base tells the mean distance of that sun from the earth. And if we go back to the date which the pyramid gives itself, and look for what that finger pointed to at midnight, we find a far sublimer indication.

Science has at last discovered that the sun is not a dead centre, with planets and comets wheeling about it but itself stationary. It is now ascertained that the sun also is in motion, carrying with it its splendid retinue of comets, planets, its satellites and theirs, around some other and vastly mightier centre. Astronomers are not yet fully agreed as to what or where that centre is. Some, however, believe that they have found the direction of it to be the Pleiades, and particularly *Alcyone*, the central one of the renowned Pleiadic stars. To the distinguished German astronomer, Prof. J. H.

Maedler, belongs the honor of having made this discovery. Alcyone, then, as far as science has been able to perceive, would seem to be "the midnight throne" in which the whole system of gravitation has its central seat, and from which the Almighty governs His universe. And here is the wonderful corresponding fact, that at the date of the Great Pyramid's completion, at midnight of the autumnal equinox, and hence the true beginning of the year as still preserved in the traditions of many nations, the Pleiades were distributed over the meridian of this pyramid, with *Alcyone* (η Tauri) precisely on the line.

Here, then, is a pointing of the highest and sublimest character that mere human science has ever been able so much as to hint, and which would seem to breathe an unsuspected and mighty meaning into that speech of God to Job when He demanded, "*Canst thou bind the sweet influences of Pleiades?*"

Whence this Wisdom?

Could all these things have been mere coincidences? Is it possible that they just happened so out of blind chance? Then what is the reason that nothing of the sort has happened in the scores of other Egyptian pyramids?

And if they were really designed by the builders, whence then came this surprising intelligence, unsurpassed and uncontradictable by the best scientific attainments of modern man?

Shall we credit it all to old Egypt? We find it memorialized *in* Egypt, but could it have been *of* Egypt? Not far can we go in such an inquiry till we find the way impassably choked up against any such conclusion. The old Egyptians never were a highly scientific people. Bunsen says, "Their astronomy was strictly provincial, calculated only for the meridian of Egypt;" and that "the signs of the zodiac were wholly unknown to them till the reign of Trajan." Brugsch says, "It was based on empiricism, and not on that mathematical science which calculates the movements of the stars." Strabo admits that the Egyptians of his day were destitute of scientific astronomical knowledge. Renan asserts, and Edward Everett had said before him, that "Not a reformer, not a great poet, not a great artist, not a *savant*, not a philosopher, is to be met with in all their history." Never, therefore, was it in their power to understand, much less originate and enunciate, the sublime science found in the Great Pyramid. The other

pyramids were *of* Egypt, but they are totally wanting in all these elements of intellectuality. We look in vain for any traces that the old Egyptians ever understood the mathematical π, much less construct so original a symbol of it. There is no proof that they ever had any appreciation of the pyramid's system of numbers, or knew anything of the sun's distance or the earth's form or weight. There is no sign that they ever used the pyramid inch, or the cubit of twenty-five inches, or any measure founded on intelligent earth commensuration. There is nothing to show that they comprehended the precessional cycle, or ever made use of it. They computed by the short and confusing Sothic cycle of one thousand four hundred and sixty-one years, and mistook even that, making it a day in every four years shorter than it really is. Their governing star was not Alcyone, the happy star of celestial tranquillity and peace, but *Sirius*, the fiery dogstar, whose rising and setting with the sun marks "the dog days,"—the most pestilential days of all the year. It is a bright and flaring star, indeed, but of ill omen to the northern and more classic peoples—a star of which Homer sung as one

> Whose burning breath
> Taints the red air with fevers, plagues, and death.

—a star fittingly auspicious of the beast worship of the people who regulated their grand cycle by it. And when we further consider how perfectly clear and pure the Great Pyramid is from all marks or traces of old Egypt's super-abounding idolatry, which "changed the glory of the uncorruptible God into an image made like to corruptible man, and to birds, and four-footed beasts, and creeping things," defiling every object with this base harlotry of the human soul; it becomes utterly impossible to believe that this grand pillar, with its still grander scientific embodiments, could ever have sprung from Egypt, though "all the wisdom of the Egyptians" had been concentrated to produce it. Many pyramids did Egypt build before the costly fashion went out of vogue; but even with the great original before them, there was not genius and observation enough in all the land to make so much as a correct copy of it. Of all the enormous mounds of brick or stone which Egypt itself set up, there is not one to tell of aught but vaulting ambition and blundering imitation. From the least unto the greatest there is neither science nor sense in any of them. How then could Egypt have originated this great science-laden forerunner of them all?

Whence then came this wisdom? Some direct us to Babylon as the fountain-head of science and astronomy. And the Chaldæans were, indeed, great builders and astrologers. They worshipped the heavenly bodies. Among them, if among any of the nations, may we best hope to find the primal treasure-house of the knowledge we have been deciphering, if it be at all of earth. To the planet temple of Nebo, at Borsippa, are we above all directed as the best memorial they have left us. But the Borsippa temple comes seventeen hundred years after the Great Pyramid, and yet sinks into insignificance beside it. Its orientation has been specially lauded as strikingly scientific for that remote age, and yet its builders missed it by six degrees! And so lopsided was that construction according to the best reproductions of its plan,—its surface so broken with corners of terraces, panelled walls, priests' dwellings, and flights of steps, that its warmest admirers do not pretend to find anything scientific in its form or shape. It was dedicated to the planets, and proposed to enumerate them in its diverse colored stages, and yet it knew nothing of Uranus, Neptune, or the planetoids, and counted in the earth's moon as one! With such an astronomy the

Great Pyramid could not possibly have been made what it is. There is, indeed, a system of Babylonian metres which has penetrated more or less into all civilized countries, principally through Alexander and the Greeks; but it was a system of *sixes* and *sevens*, and not of *fives* and *tens*. Its cubit was between twenty and twenty-one inches, and not the twenty-five of the earth-commensurated cubit of the Great Pyramid and the sacred cubit of the Hebrews. And no more in Babylon's metrology than in Babylon's planet temple is there any real science worthy of the name. There is *measure*, but it is meaningless. There is grand *building*, but it is only fanciful piling up of bricks and stories which tells of nothing but the pride and idolatry of the builders and their blundering in the plain things of our planetary economy, beyond which there is nothing. Never from such a source could the Great Pyramid have come.

Whence, then, came this wisdom? Step by step we are being driven to the border line of the territory of miracle and inspiration. Nor do I know how we can honestly help ourselves against crossing it for an explanation. Prof. Proctor has recently undertaken to solve the whole matter on very easy human grounds,

but the flippancy with which he disposes of some of the problems, while taking no account whatever of others, shows that, astronomer as he is, he has not fully taken in the case. The whole thing bears the impress of an intelligence so high, a wisdom so unaccountable, and a beneficence so genial toward the wants of man, that no one yet has even begun to show how it can be less than supernatural. And yet our presentations have followed but one line of inquiry, while there are others of still more striking character and importance. I have kept myself thus far to the department of science alone. But there remain sundry other fields full of wonder, on which I have not time now to touch.

Six hundred years had this pyramid been built before Moses began to write the Pentateuch. And what if passages should be found scattered through the Scriptures which will not intelligibly interpret without it? What if all the great doctrines of Revelation, and all the great characteristics of the ages, and all the mightiest facts in human history and God's administrations, should be found imbedded in its rocky symbolisms? What if we should find it prophesied of as a grand memorial of Jehovah, meant to be uncovered and read in

these last evil times, in confutation of the degrading philosophies and vain conceits which men untaught of God would have us accept in place of the word of Revelation? What if we should hear from out its dark and long-hidden chambers and avenues just where we are in the great calendar of time, what scenes are next to be expected in the affairs of our world and what unexampled changes presently await us? What if it should turn out to be a clear and manifest prophecy of man's constant native deterioration, of his redemption by miracle, and of his destiny forever, all written out beforehand in "the grandeur of immortal stone?" What if it should prove itself an earlier and independent duplicate of God's volume of inspiration? What majesty and consequence would it then assume in the eyes of all right-thinking men! To what a crushing test would our modern scientists then be brought with their theories of creation without a God and their doctrines of salvation without a Saviour!

Nor is it an extravagant anticipation to expect even thus much from this wonderful pillar. Once admit, as I believe it will yet have to be admitted, that superhuman intelligence is in it, and there is then every reason

to count on finding the whole story. God never deals in fragments without making them symbols of the whole. And I shall be much mistaken if it does not turn out, without forcing of facts or dealing in fancies, that in these rocks and their emplacements are treasured up from hoar antiquity the whole plan of God in grace and miracle as well as in the universe of nature. Some other opportunity may be afforded for us to enter and survey this field and thus penetrate further into this glorious mountain of glorious thoughts.

Meanwhile, the mighty structure stands immortal in its greatness, lifting its brow the nearest to heaven of all earthly works, and asserting in every feature something more than human. With all of man's workmanship that went before it in utter ruin, it stands only the more readable from the damages of time, the grand and indestructible monument of the true primeval man. Upon its pedestal of rock, battered by the buffetings of forty centuries, it stands, upspringing like a tongue of fire kindled of God to light the course of time down to its final goal and consummation.

Old Time, himself so old, is like a child,
And can't remember when these blocks were piled
Or caverns scooped; but, with amazed eye,
He seems to pause, like other standers-by,
Half thinking how the wonders here made known
Were born in ages older than his own.

Lecture Second.

MODERN DISCOVERIES AND BIBLICAL CONNECTIONS.

IT was lately my privilege to present some account of the Great Pyramid, and of that wonderful scientific knowledge embodied in it which has induced the belief that a higher wisdom than man's was concerned in its erection. I now resume the subject to present still other facts tending to the same conclusion.

A learned and able historical critic and lecturer recently stated to his audience in this city that what is thus claimed for the Great Pyramid may be true, and likely is true. And if such is the probability or even the possibility, the matter is not only worthy of our examination, but it would seem to be our duty to test it in every possible field of inquiry.

The theory is somewhat startling, and altogether so new and wonderful that some will doubtless be disposed to shrink from it as nothing but an extravagant fancy. It ought, however, to modify such a feeling when we remember that we live in an age of wonders,

an age which answers well to the ancient prophecy of a time bordering on the end, when men would become great travellers and explorers, and as a consequence the stock of human knowledge be remarkably increased.

Modern Progress and Discoveries.

There certainly never was another period of such intense running to and fro in the earth or of such astounding growth in the range of human information as this in which we live. Events, inventions, and discoveries the most momentous crowd upon each other beyond our power to keep pace with them. Their multiplicity bewilders and confounds us. The whole life, condition, and dwelling-place of civilized man is being revolutionized by them. We travel now in palaces with every ease and luxury, and faster than the winds. We converse by electricity across oceans and continents. We spin, and knit, and weave, and print, and even calculate by automatic machinery. We copy nature and record her aspects by sunbeams. The whole world has become one neighborhood. Men have made visits to the poles, mapped the currents of the sea, belted the earth in every direction with lines of railroads and steamers, thrown down

the walls which for ages separated between nations, brought all types and kindreds of men face to face, and rendered a journey around the globe a mere summer's recreation.

And especially in recoveries from the long-forgotten past, in the reconstruction of history before the historic periods, and in the bringing to light of the wisdom and science of primeval ages, our times have been extraordinarily rich and fruitful. The last quarter of a century has been a very resurrection time in this regard. Ages of which we had only the dimmest hints have been marvellously recalled from their oblivion. With the ability to decipher hieroglyphics and cuneiform inscriptions, old worlds have newly opened to our contemplation. By the mastery of languages, the tracing of them to their primal sources and connections, the searching out and bringing together of the scattered fragments of antiquity, and the exhumation of ancient remains, the original migrations of the race have become traceable, and much of their long-lost history has been reclaimed. Things hitherto referred to the department of myth, fable, and dream, have suddenly assumed the character of authentic traditions A little while ago, "Erech, and Accad, and Calneh, in the land of Shinar,"

and Calah, and Resin of Asshur, and Ellasar, and "Ur of the Chaldees," were mere names in Genesis, with scarce another known trace of them; but the mounds of Mesopotamia have yielded up their bricks and stones to modern research, and their long-silent tongues have been loosed to tell where these places stood and what mighty peoples once inhabited them. Babylon and Nineveh have thus unbosomed their records to testify how truly the Bible spoke of them and what wealth, luxury, arrogance, and power once were theirs. The names and exploits of their kings, their conquests, their religions, their gods, their sciences, and their styles of life now stand in many instances revealed before our eyes. Arabia, till lately thought to be a mere desert waste, and so marked on the maps, has disclosed grand seats of empire, with civilizations once existent there superior even to Greece and Rome. Moab's rocks have become vocal with attestations of the sacred records. Bashan's giant cities, and houses covered with stone, and gates and doors of hinged rocks, and walls and bars proportioned to their once giant occupants, have been visited and their ancient wonders verified. Palestine has been resurveyed, its old localities identified, and the

miracles of its history marvellously authenticated. Schliemann is uncovering Homeric cities and bringing up Homeric heroes and the old Homeric civilization out of their long-lost tombs. Even the whole way back through prehistoric ages to Nimrod and Noah is being laid open and lighted up by modern explorations. And why should it amaze us that from the land of Egypt also,—that land of oldest and most numerous monuments,—that land where nothing perishes,—that land so specially chosen of God as the theatre of his most stupendous miracles,—there should also be a bursting forth of unsuspected light to mingle some superior beams with the general illumination?

Egypt's Past.

And if perchance these new disclosures should be of a character more sacred and imposing than what is being exhumed in other lands, it is what we might reasonably anticipate from a country so singularly linked with some of the most marvellous Divine administrations. It is a type of the world, indeed, but in its milder aspect; the darker type is Babylon. Even Bunsen tells us that Egypt has ever been the instrument for furthering

the great designs of Providence. It has been at least the principal background of the most illustrious displays which have marked the career of God's chosen people. Israel could not become a nation without Egypt. The first and greatest of Israel's prophets was rescued from a watery grave, nurtured, schooled, and outwardly fitted for his sublime legation by the daughter of Egypt's king. Abraham himself, though from quite another section of the world, was ministered unto by Egypt. Joseph became the illustrious type of Christ by connection with Egypt. Humanly speaking, Jacob and his house would have come to a sad end had it not been for Egypt, which furnished him with bread, welcomed him to its richest lands, and gave his body a royal burial when he died. To Egypt's sovereign God sent that double dream of the kine and the ears of corn, which proved the means of Joseph's exaltation and of the salvation of so many peoples. Even when the blessed Jesus was born into our world Egypt was his asylum from the bloody sword of Herod, and once more and most literally of all were those words of Jehovah fulfilled, "Out of Egypt have I called my son." It was Egypt that gave to mankind the first translation of the

Hebrew Scriptures. It was Egypt that proved the stronghold of Christianity after Jerusalem fell. It is from Egypt that we have the noblest and greatest fathers of the Christian Church. And however ignoble now may be the land or its population, we may rest assured that God has something further to accomplish by means of a country of which he has thus availed himself in the past, and that out of it will yet come some of the greatest of sacred marvels which are to mark the closing periods of time.

The Great Pyramid's Disclosures.

Some may doubt with regard to such anticipations; but they are already being realized in the recent revelations of the Great Pyramid. For forty centuries enshrouded in the deepest mystery, that mighty pillar has at length begun to yield up its secrets. As a mere building it stands at the head of the world, in age, in vastness of dimensions, in perfection of workmanship, and in the practical mastery of problems too hard for all our boasted modern art and machinery. There is not an instance in all the vast structure in which its architects miscalculated or failed. They built for permanence. They planned their work to sur-

vive all the commotions of nature and all the Vandalism of man. Signally, also, have they succeeded. Not a stone necessary to its ulterior purpose has come short of its office. A monument has thus come down to us from beyond the classic ages which exalts and dignifies the land in which it stands. It is an edifice of stones so wisely chosen, so justly prepared, so wonderfully handled, so admirably joined, and in the proper places so exquisitely cut and polished, that it is without an equal in any land. It is likewise pervaded with the highest intelligence. There is not an inch of it which does not speak. Even after the lapse of four thousand years of observation, study, and experience, there is not a nation or people whose wisdom or every-day affairs it is not capable of improving. There is reason to think that we have not yet reached the fulness of its grand symbolizations; but if nothing more should come of the further study of it, enough has been ascertained to render it the most interesting problem of our times.

The Pyramid and the Prophets.

It would also seem as if God's inspired prophets knew of this marvellous pillar and

regarded it as a sacred wonder. The Greeks as early as Alexander's time placed it at the head of their list of "the seven wonders of the world." But Jeremiah before them wrote of "signs and wonders in the land of Egypt," and of the placing of them there by "the Great, the Mighty God, the Lord of hosts" (Jer. 32 : 18–20), which would seem to refer to this pyramid. He was in Egypt when he made this record. He went there at the fall of Jerusalem that he might write his prophecies and send them to his captive countrymen in Babylon. His method was to fortify his testimony by appealing to all the records and monuments which Jehovah had made of his power and greatness in the earth. He accordingly refers to "signs and wonders in the land of Egypt," of which he says that they still existed when he wrote,—"unto this day." He is commonly thought to allude to the miracles of the Exodus, which certainly were "signs and wonders" exactly to his purpose. But those are specifically noted in a subsequent verse, and in phraseology better suited to them. The language here suggests something monumental, something locally fixed. It naturally implies a Divine memorial, continuously abiding, and then still to be seen in

Egypt. It was something "set' there. The word is the same in Hebrew and in English, and with much the same sense in both.* It may be metaphorically used with regard to miracles, but when used of things continuous for hundreds of years after the placing, the sense is cramped and strained when applied to miracles like those of the Exodus, which disappeared with the relenting of Pharaoh and the departure of Israel. So keenly has this been felt that critics have been forced to speak of a probable substitution of one word in place of another, and men have cast about for some remaining physical marks of the Mosaic miracles in order to satisfy the terms of the record. Hence we read in Trapp's Commentary on the passage, "Orosis writeth that the tracks of Pharaoh's chariot-wheels are yet to be seen at the Red Sea!" The Great Pyramid on the new hypothesis would nobly help such critics and commentators out of the mud, and grandly meet the exact phraseology of the prophet. Interpreted then by the most cogent laws of language we here have a Scriptural recognition

* It is again and again rendered, *to make, to put, to cause to be, to order, to appoint, to ordain, to place, to set up, to erect.* Gesenius gives as its first and main sense, "*to set, to place, to put, referring to persons or things which stand erect.*" Vatablus translates it by *posuisti, placed, set up, erected, built.*

of some enduring monument in Egypt, built by God's appointment, and meant to be a witness to him.

Isaiah makes a similar reference of a still more circumstantial and positive character. In chap. 19 : 19, 20, he prophesies, "In that day shall there be an altar to the Lord in the midst of the land of Egypt, and a pillar at the border thereof to the Lord, and it shall be for a sign and for a witness unto the Lord of hosts in the land of Egypt."

This "altar" and "pillar" are not two things, but one and the same as sundry expositors have observed. The language is poetical, and has the common parallelism of Hebrew poetry. Given in the form and sense of the original, it would read

"In that day there is an altar to Jehovah
In the midst of the land of Egypt;
Even a pillar at the border thereof to Jehovah,
And it shall be for a sign and witness to Jehovah of hosts
In the land of Egypt."

Everything in this prophecy seems to look to the Great Pyramid. It refers to some specific and telling monument, and all its terms most fully apply to this marvellous pillar. There is nothing else known to which they do apply in literal accuracy and fulness.

Note how admirably the *titles* fit. "Altar" in Hebrew means "the lion of God." The Great Pyramid is pre-eminently the lion among all earthly buildings, and the new theory claims that it is Divine. The altar as described by Ezekiel is largely pyramidal in form, and is called "the mountain of God." And a mountain, surely, is the Great Pyramid, and one of a very remarkable character. The sacred books of the Hindoos call it a mountain—*Rucm-adri*—"the golden mountain." It is "a pillar," and hence not a sacrificial but a memorial altar. It is a mammoth obelisk,—one great individual shaft,—and now also believed to be sacred.

The *location* likewise corresponds. The Great Pyramid is the hub or centre of Egypt's curved shoreline, and so is "in the midst of the land," as nothing else to be thought of ever was. Yet it is also "at the border thereof." It stands on the extreme southern limit of Lower Egypt, and on the natural dividing line between the two Egypts. It is thus doubly "in the midst" and doubly "at the border."

The *time* also answers. Six times the note is sounded, and in every instance in the usual Messianic and eschatological formula—"in

that day,"—a day which nowhere finally locates this side of the period of "the restitution of all things." Whatever else the prediction may cover, it cannot therefore be considered exhausted yet, and necessarily brings us down to the times bordering on the end. By permission of Ptolemy Philometor, certain Jews built a quasi temple and altar at Heliopolis, which some take as the subject of the prophecy. But that erection was against the law and could not be called Divine, though by man's self-will intended to be so. Besides, that was an altar of sacrifice and not a memorial pillar as here described. Others think the reference is to the establishment of churches in Egypt, which were numerous in the early Christian ages. But these properly had no visible local altar at all, neither had they any one monumental "pillar" to answer this description. When this altar gives forth its witness to Jehovah, Egypt, Assyria, and Israel are to become a holy triad of divinely approved peoples, which has never yet occurred. "A Saviour, and a great one," is then to come to Egypt, and deliver from all oppressors. But this is the language designating the glorious Redeemer of the world, and we degrade and profane it by applying it as some have done to

the pagan conqueror, Alexander. Christ, indeed, came to Egypt in his infancy, and afterwards in his Gospel, but never in the character of a national deliverer. We therefore look in vain for any true and exhaustive fulfilment of this prophecy in the past. It must refer to the latter times, and it fits to nothing known but the Great Pyramid. Even Vitringa, as early as the beginning of the last century, threw out the idea in his commentary on this place that some one or other of the existing monuments of Egypt is here involved.

The Pyramid and the Book of Job.

There is a still more distinct reference to the Great Pyramid in the Book of Job, 38 : 1–7. We there have one of the grandest descriptions in the Bible. The speaker is God, and the subject is the creation of the earth. The picture is the building of an edifice. Elsewhere in the book the earth is said to be hung upon nothing ; so that we must not suppose ignorance of the real facts when the earth is here likened to a building resting on foundations. To overwhelm the pride of the human understanding, the Lord answered Job out of the whirlwind and said, "Who is this that darkeneth counsel by words without

knowledge? Gird up now thy loins like a man, for I will demand of thee, and answer thou me. Where wast thou when I laid the foundations of the earth? Declare, if thou hast understanding. Who laid the measures thereof, if thou knowest? Or who hath stretched the line upon it? Whereupon are the foundations fastened [or "made to sink" as a seal into wax]? Or who laid the corner-stone thereof, when the morning stars sang together, and all the sons of God shouted for joy?"

"Behold here the architecture of God! The terms are those of the geometer—the master builder. Here are the bases, the jointings, the lines, the height, the corner-stone, the measures!" And the style of the building is unquestionably the Pyramid. That "corner-stone" spoken of in the singular, its emphatic isolation from "the foundations," and the singing and shouting of the heavenly hosts over the mighty achievement at the laying of that particular stone, require the proper pyramidal edifice. The picture will not interpret of anything else. That corner-stone could not be at the base,* for others were there against

* This is also distinctly expressed in the ancient Coptic version, translated by Archdeacon Tattam. There in the sixth verse the language is, "Who hath laid the corner-stone *upon*

which no such marked distinction in truth existed, and its laying would then have been at the beginning, at which time this celestial celebration would be out of place. Even Barnes, contrary to the erroneous imagery by which he tries to interpret the passage, agrees that "the time referred to is *at the close* of the creation of the earth." And as this celebration according to God himself is at the laying of that corner-stone, it must needs be a top stone—a corner-stone at the summit—whose laying completed the edifice and showed the whole work in finished perfection. But for such a corner-stone at the summit there is no place in any then known form of building, save only the Pyramid, of which it is characteristic.

Nor is it only to the pyramidal form in general that the allusion is, but to a particular pyramid. By that strange reference to the sunken feet or planting of the foundations in "sockets," we are conducted directly to the Great Pyramid of Gizeh. Two socketed "encastrements," "socles," shoes, or incised sinkings

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it?" If a base corner-stone were in contemplation it would be in place to speak of the placing of the building upon it; but only a top or summit corner-stone can be said to be laid "upon" the building, and no building has such a top corner-stone but the Pyramid.

into the rock were found under two of its base corners by the French *savants* in 1799, which were again uncovered and described by Colonel Howard Vyse, in 1837. And as God here speaks of such a fastening down of the foundations in general, Prof. Smyth was persuaded that there were corresponding "sockets" at the other two base corners, and when search was made for them in 1865, they were found by Messrs. Aiton and Inglis, assisted by Prof. Smyth. Here then are the whole four "sockets" or fastened foundations. Nothing of the sort exists at any other known pyramid. They are among the distinctive marks of the Great Pyramid of Gizeh. They are the enduring tracks of its feet cut into the living rock, by which Almighty God himself identifies it for us as the original image from which his own description of the creation is drawn. Men may treat the matter as they will, but here are the facts showing a Divine recognition of this particular edifice as the special symbol of the earth's formation!

And from the same passage we also get some important rays of Divine light with regard to the builders of this pillar and their estimate of it.

The singers and shouters at the completior

of the earth's creation of course were heavenly intelligences, as most expositors agree in teaching. But as the laying of the capstone of the Great Pyramid is divinely given as the symbol of the laying of the capstone in the fabric of our world, the singers and their rejoicings so sublimely referred to in the one case must also have had place in the other.

It is never to be overlooked that there are earthly "morning stars" and "sons of God" as well as heavenly ones. "As many as are led by the Spirit of God, they are the sons of God." There were such "sons of God" on earth before the flood. Adam was one of them, and his immediate descendants in the line of Seth were others. Many of them apostatized, but some remained faithful. Noah was one of those faithful ones, and he was brought over the great water bearing with him all the sacred rites, traditions, and revelations of his holy fathers. By him the newly baptized world began once more. From his coming out of the ark to the building of the Great Pyramid, the call of Abraham, and the commission of Moses, was really the morning time of our present world. Like other mornings it had its noble "stars" and "sons of God" who shone with patriarchal faithfulness and glorious tes-

timony in their time. Shem and numbers of his seed at least were of this class. Job, and Melchisedec, and Abraham were pre-eminent among them. Jehovah has always had a people of his own among men, a people who reflected his mind and will, preserved his revelations, obeyed his commands, and kept to the pure worship of his name. Even long after the call of Abraham there was yet a true "priest of the Most High God" in Palestine, and another in Midian, and inspired Gentile prophets as late as the days of Moses and Aaron. These were God's "sons" by faith in him and "stars" of light amid the darkness of those early times—noble harbingers of the coming day.

Such "morning stars" and "sons of God" were on the earth when the Great Pyramid was built, corresponding to those in heaven when the earth was made. And as the one structure is the symbol of the other, even to its most hidden mysteries and measures, the analogy would be singularly incomplete in one of the most significant features of the divinely drawn parallel if the singing and shouting did not occur in one case as in the other.

But if these early light-bearers and children of God on earth sung and shouted at the lay-

ing of the capstone of the Great Pyramid as the heavenly hosts sung and shouted when the fabric of the world was completed, they must needs have understood it and been in deepest sympathy with it. It must have been identified with their most sacred thoughts and contemplations. It must have been of a character in full and glorious accord with what distinguished them from other people and made them "stars" and "sons of God." It must have been something most profoundly related to Jehovah and the holy treasures of his ancient revelations and promises, and hence not a mere obtrusive tomb got up by some proud, oppressive, and beast-worshipping worldly tyrant.

From the Book of God itself we thus legitimately gather that the Great Pyramid did not originate with idolatrous Egypt; that it connects with the most precious things of those "sons of God" who shone as lights in the dim morning of the world's history; that it was the subject of their devoutest joy and gratitude; and that in their esteem it was everything which it is now supposed to be.

The Pyramid and Christ.

But then we would expect it also to refer to Christ and redemption. The great subject of

all sacred Revelation is the Christ and his glorious kingdom, and we can hardly suppose this pillar Divine if it has not something on this point. Men may well sneer at the idea of a special revelation to old Cheops or his architects to teach the diameter, density, and temperature of the earth. Something of mightier moment to mankind must be involved when Jehovah thus interposes. Such claims need to be tried by the pre-eminent theme of all inspiration. But even on this high ground the Great Pyramid sustains itself full as grandly as in the sphere of cosmic facts and geodetic measures.

When Zerubbabel and Jeshua were engaged rebuilding Jerusalem and the Temple on the return from the great captivity, they had in hand a work of extraordinary greatness, difficulty, and discouragements. So important was it in itself, and so bound up in history and type with another and greater restoration, that it was made the occasion and subject of special Divine communication through Zechariah the prophet. And in those prophecies that work and all that it typified is set forth under the image of the building of the Pyramid. A "great mountain" of worldly power and difficulty was in the way, but God said it should

become "a plain before Zerubbabel," as the Gizeh hill was levelled to receive the Great Pyramid. As despite all hindrances the Pyramid was successfully carried forward to completion, even to the laying of the peculiar corner-stone of its apex amid the songs of "the morning stars" and the shouts of "all the sons of God," so was Zerubbabel and he whom Zerubbabel typified to succeed in their Divine work, even to the "bringing forth of the headstone thereof with shoutings, crying, 'Grace, Grace unto it.'" (Zech. 4 : 6, 7.) The pyramid idea is absolutely essential to an intelligible and consistent interpretation of this imagery. The picture is an exact parallel to the one in Job, only transferred from nature to grace,—from geologic to Messianic territory.

By necessary implications of Holy Scripture then the Great Pyramid is immutably linked with the building of the Church of which the adorable Jesus is "the headstone," "the chief corner-stone."

It is also a clear and outstanding fact that the Scriptures continually make the pyramid capstone the type and symbol of Christ, both in the Old Testament and in the New. Who needs to be reminded with what brilliant diction Moses likens Jehovah to a rock, and how

triumphantly he asserts against all the heathen world, that "their rock is not as our rock, even our enemies themselves being judges!" Out of the very spirit as well as letter of the Holy Book every Christian congregation using the English tongue, often lifts up its voice to Jesus, singing

> Rock of ages, cleft for me,
> Let me hide myself in thee!

He is not only such a rock as that which yielded thirsty Israel drink, or as that which gives the weary traveller shelter from the scorching sunshine or beating storm, or as that which the prudent builder seeks whereon to found his house securely, but especially such a rock as that which forms the apex of the Pyramid—a rock which is the head and crown of all the works of Providence and grace—the unique bond in which the whole edifice of time is united—the headstone of redemption lifted high above all other rocks, "that in all things he might have the pre-eminence." So David conceived of him when he sung, "The stone which the builders refused is become the headstone of the corner," or "the head corner-stone," as the Septuagint renders it. (Ps. 118 : 22.) So Peter being

"filled with the Holy Ghost," conceived of him when he said to the Jews who had condemned and crucified him, "This is the stone which was set at naught by you builders which is become the head of the corner." (Acts 4 : 11.) Hence, also, he wrote to his scattered brethren in the faith as having come to Jesus, "as unto a living stone disallowed indeed of men, but chosen of God, and precious," in whom they also "as lively stones were built up a spiritual house," according to the saying of God, "Behold I lay in Zion a chief corner-stone, elect, precious," even "the stone which the builders disallowed," but which now "is made the head of the corner, and a stone of stumbling and a rock of offence even to them which stumble at the word." (1 Pet. 2 : 4–8.) So Paul conceived of him when he wrote to the Ephesians, "Ye are built upon the foundation of the apostles and prophets, Jesus Christ himself being the chief corner-stone, in whom all the building fitly framed together groweth unto an holy temple in the Lord, in whom ye also are builded together for an habitation of God through the spirit." (Eph. 2 : 20–22.) And the same conception Jesus applied to himself when he said, "Did ye never read in the

Scriptures, the stone which the builders rejected the same is become the head of the corner? And whosoever shall fall on this stone shall be broken, but on whomsoever it shall fall it will grind him to powder." (Matt. 21 : 42–44.)

All these are great central passages of the Divine word, and not one of them will interpret without the Pyramid, whose light alone brings out their full significance and beauty. It is absurd enough when men speak of a river's head at one end of it, and its mouth at the other end; but it is unbearable to represent the Holy Ghost treating of the head of a thing as in its toes. Interpreters may put such absurdities in the Bible, but its author never does. The head is not the foot nor the foot the head in any consistent or intelligible use of language. So the head corner-stone cannot be the foot or foundation corner-stone. Where there are four alike, to regard one as chief is a mere conventionalism without reality in fact, and such as the Bible never employs. Common architecture furnishes no one pre-eminent corner or corner-stone. There is no head corner without the Pyramid. That alone has such a head at the head, or a corner-stone uniquely and indisputably the chief. It

has the usual four at the base, alike in shape, place and office, but it has a fifth, different from all others and far more exalted. It is at the top, and properly the head one. It is the last to come into place and so may be long rejected while the building still goes on. The base corner-stones must be laid at the beginning. Work cannot proceed while either of them is disallowed. They are also of such regular shape as renders them capable of being worked in as well at one place as at another. They furnish no occasion to be disallowed. Not so the head corner-stone. The shape of that is altogether peculiar. It is five-sided and five-pointed. From foundation to summit there is no place at which it will fit till everything else is finished and its own proper place is reached. Till then it is naturally enough rejected by the builders. They have no place for it. To those ignorant of its purpose it is only in the way—"a rock of offence and a stone of stumbling." With one sharp point always sticking upwards, any one falling on it would necessarily "be broken." And when on its way to its position hundreds of feet in the air were it to fall on any one it would certainly "grind him to powder."

But though rejected to the last, it finally

turns out to be the very thing required, and reaches a place to which it alone fits; a place above all others, where it sublimely finishes out and binds together everything in one glorious whole. It is itself a perfect pyramid, the original model of the edifice which it completes and adorns. It is emphatically the head stone of the head corner. It is at the head and not at the feet. It has its own peculiar angles and they are the angles of the entire structure. There is but one stone of that shape and it is the shape of the pyramid complete. It is the stone which stands toward Heaven for every other in the building. Every other stone in all the mighty construction stands in it, and has place with reference to it, and is touched by its weight and influence, as well as sheltered under its lines, and honored and perfected by its presence. It is indeed the "all in all" of the whole edifice. To its angles is "all the building fitly framed together." And in it every part and particle that belongs to the structure from foundation to capstone has its bond of perfectness, its shelter, and its crown.

About such imagery there should be no question. In all the richness of the Scriptures there is not a more luminous, expressive,

and comprehensive picture of the Christ, in himself, in his experiences, in his relations to his friends or foes, in his office and place in all the dispensations of God toward our race, than that which is given in these texts when studied in the light of the Great Pyramid. These passages alone consecrate and sanctify it forever. In them the Holy Ghost takes hold of it, traces in it a sacred significance, and assigns to it relations and connections, the truth and beauty of which cannot be disputed. And thus by the highest authority known to man it is rendered impossible to be thoroughly true to the utterances of inspiration, and yet regard this venerable monument as nothing but the profane tomb of a pagan despot.

The Pyramid and the Christian Dispensation.

And this sublime testimony to the Great Pyramid from without is also fully sustained by its own testimony from within. We have seen in a former lecture how grandly it symbolizes the truths of nature. Let us glance now at its symbolizations of Grace.

Prof. Smyth relates that in the course of the summer of 1872, Mr. Charles Casey, of Pollerton Castle, Carlow, wrote him that while he had followed and adopted all the explanations

as to the metrology of the Great Pyramid being of more than human scientific perfection for the age in which it was produced,—yet to call it therefore divinely inspired or "sacred" seemed to him to be either too much or too little. "Now, said Mr. Casey, unless the Great Pyramid can be shown to be Messianic as well as fraught with superhuman science and design, its 'sacred' claim is a thing with no blood in it,—nothing but mere sounding brass." Nor was this an unreasonable test. And it is one which I am happy to say the Great Pyramid very nobly stands.

The first to break ground in this department was Robert Menzies, a young shipbuilder and draughtsman, of Leith, Scotland, a Christian Israelite who never saw the Great Pyramid, but had long been engaged in the devout study of the works which describe it. In 1865 he wrote to Prof. Smyth that the immense superiority of the height and finish of the Grand Gallery over every other passage is owing to the fact that it represents the Christian dispensation, while the other passages symbolize only human histories or preparatory dispensations. He also had good reason for this conclusion, more perhaps than he knew.

The Christian dispensation by common con-

sent dates from the birth of Christ. If the Grand Gallery represents it, then the mark for the birth of Christ is the commencement of that gallery. The unit or that which counts one in pyramid measure is the inch, and so the inch, as in the diagonals of the base, symbolizes the grand unit of time, a year, at least in the floorlines of the passages taken as scrolls of history. Measuring thirty-three inches then from the beginning of the Grand Gallery for the duration of the earthly life of Christ, we come precisely over against the mouth of that mysterious "well" with its ramp-stone cover gone, as if violently forced out from beneath. That "well" extends irregularly down through the masonry and rock to a wide cavern, and thence to the entrance of the bottomless pit itself. It is a striking symbol of death, sealing up in the sepulchre, descent into hell, and triumphant resurrection in irresistible power. And it comes at a place to fit precisely to the death and resurrection of our blessed Lord. This certainly is a very strong point with which to begin.

The Christian dispensation is emphatically the dispensation of new life. Its pervading spirit is that of resurrection. Basing itself on the resurrection of Christ as its great sealing

fact, it went everywhere in the power of the Holy Ghost awakening men out of their moral graves and calling them forth in a new birth, "that like as Christ was raised from the dead by the glory of the Father, even so we also should walk in newness of life." Most intensely also is this signified throughout the whole length of the Grand Gallery of our Pyramid. It is lined along its base on both sides with ramp-stones like "washboards" to a stairway. They are about a foot high and wide, and they are all cut with miniature symbolic graves every one of which is open. More than this, right by the side of each of these open graves is a neatly cut stone set vertically in the wall. It is a symbol of standing upright, and almost audibly proclaims the tenants of those open graves risen, as all true Christians are, not only from the death of sin, but to an heirship of a still completer resurrection through him who is to come again. There are eight times seven of these open graves. Eight is the number of new life and resurrection, and seven of dispensational fulness, so that by their numbers they also signify this newness of life. We thus have one of the intensest and most spiritual features of the Gospel as emphatically pronounced as stones can speak it.

The Christian dispensation is likewise pictured in the Bible as made up of seven churches headed by "seven stars" which are "the angels of the seven churches." So the best and earliest commentators explain that first vision of the Apocalypse, which allows very little room for differences of opinion. And a corresponding symbol of the same is contained in this Grand Gallery. It stares every one in the face the moment the place is entered. All writers have described it as one of the peculiar beauties of the singular arrangement. Each side of the wall is made up of just seven courses of finely fitted polished stones, the one overlapping the other and extending the whole length from commencement to termination. It is the gallery of the seven courses just seven times the height of the other passages. Besides, this gallery has special relations to the Pleiades. It tells in several ways of those benignant and exalted stars. In its own way it thus also points to the "seven stars" as presiding over the seven churches.

As a matter of historic fact the Christian dispensation followed immediately on the Jewish economy, of which it is the crown and completion. The law leads the way to Christ. This historical succession is also carefully pre-

served in the symbolizations of our Pyramid. The first upward passage which leads to the Grand Gallery is just the number of inches in length which the best chronologists give as the number of years from the Exodus to the birth of Christ. It is the way to the Grand Gallery as the Jewish dispensation is the way to the Christian.

The Christian dispensation also has a fixed limit. It is to terminate with the coming again of the Lord Jesus to judge the quick and the dead. Every commission under which we now act extends only to that time. And that coming of Christ to end this age is everywhere presented as impending,—as a thing which might occur any day. All this is likewise symbolized in the Grand Gallery of the Great Pyramid. Its termination is as distinctly marked as its beginning, and even the impendingness of the end is not overlooked. Its south or further wall leans a full degree and overhangs its base as if it might fall at any moment.

From my studies of the Apocalypse, I was led to publish years ago my firm belief that the present Church period is to be succeeded by a dispensation of judgment extending through years before the great consummation

is reached. And here we have it most evidently symbolized next after the end of the Grand Gallery. There the passage becomes low again, for the Church as such has ended its career. There the "granite leaf"—a great frowning double stone—hangs in its grooves, beneath which every one that passes in must bow, exhibiting a most impressive picture of "the great tribulation" of the judgment period. There also are the rules and measures by which the Pyramid was constructed, all graven on the stones, indicative of the complete righting up of everything according to law and justice. And then only comes the entrance into the grand and polished granite chamber of the king.

One of the most exalted steps in the history of the Church is that which was accomplished during the first quarter of our present century. It was in the first twenty-five years since 1800 that Christendom throughout the world formed its great organizations for the dissemination of the Holy Scriptures, for the publication and general diffusion of religious literature and Gospel truth, and for the sending out and support of missionaries to the heathen, to plant the Church of Jesus in all lands and islands. It was in those years that the Christian world

experienced a revival of aggressive evangelization and missionary zeal, the greatest and the most general since the days of the Apostles, the effects of which continue with still increasing power. The coming into activity of these organizations with their results was so marked an advance on everything of the kind for more than twelve hundred years, and so universal that we might justly expect it to be noted in any complete prophetic symbolization of our dispensation. Accordingly following the floor-line of the Pyramid's Grand Gallery towards its upper end we come to a grand step three feet high. I long wondered what it could mean, as it is the only one in the whole length of the glorious passage after that somewhat corresponding rise not far from the beginning. But when I came to count the number of inches from the commencement of the Grand Gallery to this upper step the mystery was solved. The number of those inches is close about one thousand eight hundred and fourteen, which at the rate of an inch for a year brings us to the very centre of those years in which the Church universal made this mighty, and unexampled stride. Beyond this step there is no further ascent. The great stone which forms it is also the weakest and most frac-

tured and dilapidated of all the stones in the whole passage-way of the Grand Gallery. It shows a marvellous rise, but an equally marvellous absence of solidity and strength. It is the image of brokenness, feebleness, and the want of firm texture. It seems as if crumbling away under the feet of those who stand upon it. And this again most strikingly accords with the poor, rent, weak, and wasting character of the Christianity of our times, though they be times of universal evangelization. It is Christianity, and evinces a great rise in effort and aim; but it is a very shattered and infirm Christianity, with but little solid substance left and incapable of enduring long.

Thus there is scarce a feature of our dispensation from the birth of Christ till now, or that is anywhere foretold of its end, which is not symbolized in the Grand Gallery of the Great Pyramid. Man in all his ingenuity is incompetent to devise a simpler and completer chart of it, were he to labor at it for ages. And yet here it is in all its great facts, characteristics, and relations, in its beginning and end, in its constitution and history, in what went before and in what comes after, built into an edifice of mighty rocks more than three times

seven hundred years before Christ was born. All this certainly is very remarkable.

Is it then within the reason of man to say that there was nothing above and beyond mere human power and calculation here,—no potent presence of that MIND which knows the end of all things from the beginning, and giveth wisdom unto the wise?

THE PYRAMID AND THEOLOGY.

Tested also by the more inward substance and contents of sound Scriptural doctrine, the facts are equally remarkable and cogent.

The foundation of all sacred doctrines is the existence of a personal and eternal God, the Almighty Maker of heaven and earth. The Bible pronounces that man a "fool"—one criminally self-stultified—who can find it in his heart to say, "there is no God." So also the Great Pyramid teaches. It symbolizes the earth and all the universe as a contrivance, a work, a building, shaped to Promethean plan. It must therefore have had a contriver, an intelligent and potent author, greater than itself. It thus pronounces at one and the same time against Atheism, against Sabaism, against Pantheism, and against all idolatry and false worship. It knows nothing of a world with-

out an architect, of creaturehood without basis or centre, of beauty without parent or birthplace, of good without a bosom out of which it flows, of thought without reason, of effect without a cause. It proclaims the universe a product, and one self-competent God as its author.

It is an essential part of orthodox theology that Jehovah is a three-one God. "The true Christian faith is this, that we worship one God in Trinity, and Trinity in Unity, neither confounding the persons nor dividing the substance." And when we ascribe glory to the Father, and to the Son, and to the Holy Ghost, we rightfully add "as it was in the beginning," for so is the representation in this Pyramid before the Bible was written. On each of its four faces as in its fundamental figure it presents to every beholder the geometric emblem of the Trinity, the same that is accepted by the Church and exhibited in nearly every place of Christian worship. Creation is the reflection of God himself, and the Pyramid as a symbol of the creation gives impressive token of His mysterious Tri-unity. Nature reflects Trinity, and this symbol of nature does the same with a depth and stress which cannot be disputed. Shaw states that the Deity is typified by the outward form of this pile, and that

form is a triangle whether viewed on either side or from either corner.

The architect of the world this monument likewise proclaims to be the *King* of the world, a governing and upholding Providence as well as a tri-personal Creator. Those measures, motions, interrelations, and vast revolutions which it symbolizes, all tell that the universe does not hold God but that thus he holds and manages the universe. They are the grasp and pressure of an infinite and Almighty hand, whose fingers clasp the crystal poles of the earth and heavens, and under whose protecting palm the continents and seas, planets, suns, and systems pass with unfaltering steadiness from age to age. And the conformation of its shape measures, avenues, and openings, to cosmic and celestial facts, themselves the symbols of an eternal Providence, proclaims the potent presence of God in the histories as well as in the constitution of the earth.

But the Bible tells also of an evil power in the universe—an anti-God—whom it describes as an apostate angelic being who has obtained a terrible influence over the affairs and destiny of man. He is called the Dragon, the old Serpent, Satan, the Devil. He is declared to be a murderer, a tempter, a destroyer, a liar,

the author of all evil, under whose usurped dominion mankind, unhelped of God, are hopelessly inthralled. And this too is strikingly expressed by the Great Pyramid.

From the earliest known times different portions of the heavens have been designated, and known by certain figures supposed to be outlined by the stars which they embrace. There are now about eighty of these constellations. The stars of which they are composed the Bible declares to be for "signs," as well as for seasons, days, and years. The probability is that the earlier and most remarkable of these designations were made by God himself even before the flood. Josephus attributes the invention of the constellations to the family of Seth, the son of Adam, and refers to ancient writers as authorities. Origen affirms that it was asserted in the Book of Enoch that in the time of that patriarch the constellations were already divided and named.* Vol-

* The Book of Enoch, translated by Bishop Lawrence, is as a whole, an apocryphal production, dating somewhere about the beginning of the reign of Herod, before Christ. It has some ten chapters devoted to the mysteries of astronomy, the heavenly bodies, and their relations and revolutions. It will at least serve to show what was the feeling on the part of those whom the writer represents when he says that all these things were made known to Enoch by Uriel, the holy angel, who gave "the whole account of them according to every year of the

ney informs us that everywhere in antiquity there was a cherished tradition of an expected conqueror of the serpent, and asserts that this tradition is reflected in the constellations as well as in all the heathen mythologies. Dupuis, also, and others of his school have collected ancient authorities abundantly proving that in all nations this tradition always prevailed, and that the same is represented in the constellations. Indeed, antiquity with one voice declares for their very early origin, and the results of modern investigations by astronomers themselves confirm the traditions and reveal internal evidence of their having been constructed more than five thousand years ago. Cassini commences his *History of Astronomy* by saying, "It is impossible to doubt that astronomy was invented from the beginning of the world; history profane as well as sacred testifies to this truth." Bailly and others assert that astronomy must have been established when the summer solstice was in the first degree of Virgo, and that the solar and lunar zodiacs were of a similar antiquity,

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world forever, until a new work (or creation) shall be effected which will be eternal." The twelve signs of the Zodiac are plainly indicated in this book. See Book of Enoch, chap. 71 *seq.*, pp. 84, 85, and 232.

which would be about four thousand years before the Christian era. They suppose the originators to have lived in about the fortieth degree of north latitude, and to have been a highly civilized people. Prof. Proctor, by calculations based on Hindoo and other astronomies, traces the authors of this science to some people residing between the rivers Cyrus and Araxas, not very far from Mount Ararat, at a date perhaps two thousand two hundred years before Christ. Sir William Drummond says, "The fact is certain that at some remote period there were mathematicians and astronomers who knew that the sun is the centre of our system, and that the earth itself a planet revolves around it." The constellations were certainly known in the time of Job, and are familiarly referred to in that very ancient book. Seyffarth says they are as old as the human race. The author of *Mazzaroth* makes the origin of the constellations antediluvian, and thinks they were framed by inspiration for sacred and prophetic purposes. There are actual astronomical calculations in existence with calendars formed upon them, which eminent astronomers of England and France admit to be genuine and true, and which carry back the antiquity of this science together

with the constellations to within a few years of the deluge, even on the longer chronology of the Septuagint. Sir John Herschel finds much fault with these old constellations as barbarous and unscientific. He would have these contorted snakes, miscalled bears, lions, fishes, and the like, banished from our astronomies as too oppressive to the student's memory. But the author of *Mazzaroth* very well suggests that this learned astronomer perhaps never came across the proper meaning of these grotesque figures or never duly studied them as symbols, or he would have been less anxious for their obliteration. Nay, the specimens which modern astronomers have given of their skill at such reforms do not much recommend the giving of free scope to them in this particular. The universality of these ancient groupings must ever secure their retention, however disliked by scientists. And the very inconvenience of them for naked astronomical purposes is proof not of the barbarism of their inventors, but that they were meant to serve some further end. The most important historical, theological, and prophetic truths have been inscribed on the heavens by means of them, so that they need only to be stripped of the changes, caricatures, and interpolations of

the heathen Greeks and modern scientists in order to show us the outlines of the Bible on the sky, and to prove that in a high, evangelic, and most impressive sense "the heavens declare the glory of God." The author of *Mazzaroth* and others have not only said but shown that we have in these ancient constellations a medium of communication with the mind, theology, and hopes of primitive man, and that we here may read the fact that God has spoken to our race, given to it a Revelation from the beginning, and embodied in it precisely the same great truths afterwards written and developed in the sacred Scriptures. Everywhere do we encounter the traditions of Abraham's skill in the knowledge of the heavens, how he argued from his observations of the heavenly orbs, and how he occupied himself in Egypt teaching the priests of Heliopolis in the lore of the skies. Doubtless this was not the naked science of astronomy as the schools conceive of it, but as respected the theological and Messianic truths symbolized in these celestial hieroglyphics, in which, as in the more literal promises, he rejoiced to see Christ's day, and saw it and was glad. (John 8 : 56.) Well, therefore, has it been that these ancient "signs" have been preserved And mankind

have reason to pray that no hand of intermeddling science may ever sweep them down, but that they may continue to stand unto the end in all the almanacs of time.

One of the oldest and most universal of these ancient constellations is the Dragon or Great Serpent. The chief star embraced in that group (α Draconis) is situated in the monster's tail. And to that star the entrance passage of the Great Pyramid was levelled, so that α Draconis at its lower culmination then looked right down that inclined tube to the bottomless pit. Mankind marching down that passage would therefore be moving under the sign and dominion of the Dragon. Thus in a manner which startles by its vividness the Great Pyramid answers to the Bible in saying that there is a Devil, who has somehow obtained an awful potency over the human race, and that mankind under him are on the way to the pit of destruction. The picture is that of a tube over which the Dragon presides, whose incline is fearfully downwards, and which terminates in hell! Could the story be told in simpler or more graphic terms?

Some laugh at the idea of a hell. Even whole denominations calling themselves Christians make it a point of faith to deny the

existence of any such thing. But the Bible tells about it as a dark and mysterious underworld—a bottomless pit—a subterranean region of hopeless misery,—out of which there is no escape. And here is the symbol of it in the Great Pyramid—a room far under the centre of the edifice, one hundred feet down in the solid rock, having neither bottom nor outlet. It has continuity in a tube on the further side, but it is endless, the same as the pit is bottomless. With singular significance has this feature been copied in all other pyramids, to whose hopeless subterranean chambers the kings of idolatrous and self-justifying Egypt were consigned. Hence the words of Ezekiel (31 : 14–18): "They are all delivered unto death, to the nether parts of the earth, in the midst of the children of men, with them that go down to the pit. . . This is Pharaoh and all his multitude, saith the Lord God." And in the facile and smooth descent of that main passage-way leading directly down to the pit we have the symbol of the tendency and hopeless destiny of man since his fall into Satan's power, except as recovered by some gracious intervention superior to nature and mightier than the Devil.

But the glad and glorious teaching of the

Bible is that God has interposed, introduced a new and saving economy, calling Abraham, commissioning and inspiring Moses and the prophets, establishing for himself a consecrated people, and preparing the way for a sublime Deliverer in Jesus Christ, who has brought forgiveness and eternal life into the world, and arranged for a new and eternal dominion of righteousness and peace, which is to dethrone Satan and bring man back to original blessedness. This is the very soul and spirit of the Scriptures—the master theme of both Testaments and of all their institutes. And the same is the great subject of all the chief parts of the Great Pyramid's interior—the burden of its noblest passages—the story of all its upper apartments.

The first ascending passage begins at the point which answers in the number of its year-inches to the date of the Exodus of Israel. It also covers by its length the precise number of inches that there were years from the Exodus to the birth of Christ. We thus identify it as the Pyramid's symbol of the Mosaic dispensation. That dispensation was an upward movement in human history founded on direct supernatural interferences of the Almighty, and so this is an upward passage with the

same angle heavenward as that of the entrance passage is hellward. It is a most expressive symbol of a special and effective interposition of God to raise men up from their decline toward destruction, and thus furnishes us with a monumental testimony to the whole Scriptural representation of that economy.

But the Mosaic dispensation was only intermediate and preliminary to something greater and higher. Hence that upward passage suddenly enlarges into a far more magnificent ascending opening. The top abruptly rises to seven times the previous height, and everything is correspondingly exalted into the Grand Gallery. This is the symbol of the Christian era—the grandest section in all the scrolls of human history. It begins at the inch which marks the Saviour's birth. Thirty-three inches from that beginning bring us to the startling symbol of death, burial, descent into hell, and resurrection from the dead,—to that fearful "well" with its heavy stone covering broken out by an upward force which tore away a part of the wall itself, "for it was not possible that he should be holden of death." The entire length is covered with thirty-six overspanning stones, the number of months of Christ's public ministry. And beyond is

the granite King's Chamber in which all consummates. And there the polished walls, fine materials, grand proportions, and exalted place, eloquently tell of glories yet to come. It is the chamber of fifties, which is the grand jubilee number.

Nay, for those Gentiles who never knew of Israel's worship and sacred books there is also a word of hope inserted. They are not necessarily all lost. From the lowest depths of Ethnic apostasy the Great Pyramid still indicates a way up through the atoning death of Christ to the celestial blessedness. It is a steep, tortuous, difficult, dangerous, and uncertain way, not likely to be found and safely traversed by many; but it is there. It is a speaking symbol of what the inspired Apostle declared so long afterwards, that "in every nation he that feareth God and worketh righteousness is accepted of him," accepted through the mediation of Christ.

Here are symbolizations of sacred histories whose warp and woof is miracle. Here are expressions the soul of which is the same Divine breath which animates and fills the Testaments of God. Here are heavenward pointings and indications of the way to eternal life as distinct and gracious as those which

mark the holy Evangely itself. It is the Gospel pronounced in stone. It is the testimony of "Jesus and the resurrection" put up in imperishable rock. It is redemption memorialized in marble more than twenty centuries before the Christ was born! Could it be mere accident? Was it not rather the dear God above us laying up the sublime things of his grace in enduring lithic records which man could not alter nor time destroy to demonstrate to the skeptics of our day how unreasonable and inexcusable is their unbelief?

The Pyramid and the Day of Judgment.

The Bible moreover tells of a nearing day of judgment—a time when the Almighty power that made us will reckon with us concerning these earthly lives of ours, and deal out destiny according to the uses we have made of them. In all its addresses, whether didactic or prophetic,—whether to warn the wicked or comfort the pious,—whether for the vindication of God or the foreshadowing of what is to become of man,—the Bible everywhere refers us to an approaching crisis, when the principles of eternal justice must go into full effect, when the trampled law will inexorably enforce its supremacy, when everything must be righted

up, and all that is adverse to truth and good be forever blasted; when faith and virtue shall be rewarded and enthroned, and all else sink overwhelmed by a majesty which nothing can withstand. It is described as a time of sorrow and unexampled distress for the unbelieving world—a time of fears and plagues and great tribulation to all but God's watching and ready ones, to whom it shall be a day of glorious coronation in heaven. Its coming is spoken of as sudden—when men in general do not expect it—when many are saying, "Peace and safety." Like the flood upon the old world—like the tempest of hail and fire which overwhelmed Sodom and Gomorrah—so shall it come upon the nations. When men think not, the Son of man cometh. And all this too is solemnly pronounced by the Great Pyramid. That Grand Gallery stops abruptly. It is suddenly cut off in its continuity. From a splendid passage-way twenty-eight feet in height it ceases instantly, and the further passage is less than four feet. The floorline then no longer ascends. A ponderous double block of frowning granite, hard and invincible, hangs loose over the low and narrow pass now. In the same antechamber in which it hangs, the rules, measures, and weights appear engraven

in majesty upon the imperishable granite, for every one to pass under. The tokens are that now judgment is laid to the line, and righteousness to the plummet, that every cover may be lifted, and every refuge of lies swept away. Everything here indicates the inexorable adjudications of eternal righteousness.

And that solemn time is also everywhere represented as now close at hand. As far as theologians have been able to ascertain, all the prophetic dates are about run out. The Scriptural signs of the end have appeared. Every method of computation points to the solemn conclusion that we are now on the margin of the end of this age and dispensation. Nor does the Great Pyramid fail to tell us the same thing. Measuring off one thousand eight hundred and seventy-seven inches from the beginning of the Grand Gallery for the one thousand eight hundred and seventy-seven years since the birth of Christ, there remain but a few inches more to bring us to its end. So likewise when we go forward on the dial of the precessional cycle to observe the condition of the heavens when the last of these inches is counted off, the astronomical indications are correspondingly remarkable. The Pleiades which were on the meridian when the Pyra-

mid was built are then far to the east, with the vernal equinox at the same time precisely the same distance from that meridian to the west, whilst the distance from one to the other measures the exact age of the Pyramid at that date. At the same time α Draconis will again be on the meridian below the pole, but then just seven times lower than at the time of the Pyramid's building. This final downwardness of seven times is strikingly suggestive of the Dragon's complete dethronement. And what is still more remarkable, whilst α Draconis is on the meridian at this low point, Aries, the Ram, appears on the meridian above, with the line passing exactly through his horns! A more vivid astronomical sign of the overthrow of Satan under the dominion of the Prince of the flock of God it is not possible to conceive. It is as if the very heavens were proclaiming that then the ever-living Lamb takes to him his great power, and enters upon his glorious reign!

The Pyramid and the Jew.

It is the opinion of many earnest believers in the Scriptures that God is not yet done with the Jews as a distinct and peculiar people. As a nation they rejected Christ and fell from

their high pre-eminence, and are now on precisely the same footing with the Gentiles with regard to the Christian dispensation. There is no way of salvation nor any special privileges for them now other than the Gospel offers to all men alike. Through the atonement of Christ and union with him, there is redemption for their souls the same as others, but in no other way. But the belief of many is that they are preserved in their singular distinctness, even in unbelief, as the subject of a grand restoration and conversion when the times of the Gentiles are fulfilled, and that blindness in part has happened unto them, in which as a people they will remain till the time of the revelation of Jesus Christ at his second coming. And to this belief the Great Pyramid would also seem to answer in a very marked manner.

A special national token of the Jew is the sabbatic system. It was given of God, and made to pervade the whole Jewish economy as a thing by which the chosen people were to be distinguished from all other nations, and in the observance of which they were to exhibit themselves as God's people. Disregard of this was held to be treason to their King, and a forfeiture of all their rights to the promises

And this sabbatic system is specially characteristic of the so-called Queen's Chamber and the horizontal passage leading to it.

They reached their highest point when of them Christ was born. The same unbelief by which they then were broken off they have ever since retained. Hence the avenue which I take as a symbol of their history from Christ's time is horizontal, except that the last seventh of it drops lower than any other part. If the latter chapters of Ezekiel (from the thirty-sixth onward) and many other passages are to be literally taken, and there is great difficulty in understanding them in any other way, there is to come for Israel a grander restoration than that of their return from Babylon, when they will be re-established in holiness according to their ancient estate, and all their early institutes again be righted up and put into full effect. Hence this low horizontal passage terminates in a grand sabbatic room full of the most important notations of the measures and proportions of the whole Pyramid.

Those who hold to this restoration of the Jews hold also that they will be returned in their present unbelief and blindness as regards the true Messiah, and will only afterwards have the scales removed from their eyes after

the manner of Paul, who in this respect was as one born *before the time.* And this also would seem to be distinctly set forth. Two ventilating tubes have recently been discovered in the so-called Queen's Chamber, which the builders left entirely closed over with a thin unbroken scale, which not only shut them from all observation but rendered them of no practical effect whatever. The room has therefore always been noted for its foul air and noisome smell, for the atmosphere there was left without circulation for four thousand years. These tubes extended inward through the masonry and into the stones forming the walls of the room, all nicely cut, but for about five inches they were not cut through into the room itself. On the hidden sides of the walls these air-channels were open, but on the visible sides within the room the surface was smooth, even, and unbroken, the same as any other part. It was only by something of an accident that these scales were broken and the channels opened into the room itself. So singular an arrangement could have none other than a symbolic intent. No architectural reason for the peculiarity can at all be traced. And most strikingly would it serve to signify the blindness of the Jew, and his deadness in unbelief, needing

only the breaking away of those scales for the free breath of God to purify everything again. And if this is the meaning of the symbol, it accords precisely with the idea of the re-establishment of the Jewish nationality before the great conversion, and that this breaking away of the disabling and defiling scales of blindness and unbelief remains to be accomplished after entrance upon the state symbolized by this room. And even then it is only removed by a breakage and violence entirely distinct from the ordinary course of things, which would also be fulfilled in case the general conversion of the Jews is to be brought about after the manner of that type of it exhibited in Paul, who was converted as no other man ever has been by the personal apocalypse of the Lord Jesus.

It is also fully agreed by those who hold to the belief of a restoration of the Jews, that they will then be lifted spiritually far above the dead level which has characterized them as a nation since the fall of Jerusalem, and that quite a new, higher, and holier spirit than they ever experienced before will then be breathed into their ancient ceremonial. And the same would seem to be symbolized in this chamber. It has no proper floor, and is entered

from a very low plane, even lower than the avenue in general. But inside there is a base-line marked evenly around it at a range with the square top of the entrance passage, indicating a grand lifting up after having entered. It is in the relative spaces above this line that the sabbatism and exalted proportions and commensurations of the apartment appear.

This opens an entirely new field in pyramid interpretations, which calls for a more enlarged and thorough examination. But what does that horizontal sabbatic passage, starting from the level of Christ's death and dropping lower in the last seventh of its floorline, mean, if not the Jew who has risen no higher since the rejection of his Messiah, but has fallen lower of late by his rationalism, though still preserving his distinctness from all other peoples? What can that remarkable, separate, sabbatic room mean, if not intended to set forth a separate and peculiar earthly destiny of the Jew? And what can that grand uplifting and the breaking through of those thin stoppages of the ventilation signify, if not the requickening by the Spirit of God which is promised to the Jew for the sake of his fathers, when once he shall look upon him whom he has pierced?

The Pyramid and Heaven.

The crown of Christian theology and hope is the doctrine concerning heaven, the residence of God and his glorified people. When the Saviour left the earth, he said, "I go to prepare a place for you." Abraham looked for a permanent city. Paul spoke hopefully of "a building of God, a house not made with hands, eternal in the heavens." John beheld and wrote of "that great city, the holy Jerusalem," even "Jerusalem the golden," of which the Church ever sings with such fondness and delight. And this too is symbolized in the Great Pyramid. If nothing else, the granite chamber in which the dispensations of this world terminate may serve to tell of it. But that chamber seems rather to relate to the consummated earthly than to the heavenly. There is reason to believe that another and superior chamber exists in the mighty edifice, more fully answering to the celestial city. The sabbatic chamber is on the twenty-fifth course of the masonry, and the granite chamber on the fiftieth. To make up the complete count there would have to be a third on the one hundredth course, corresponding to "the third heaven." The Apocalypse, that book of the

consummations, seems also to call for such a chamber. As "the seven churches" under "the seven stars" are found in the Grand Gallery, and the judgment dispensation in the ante-room leading to the granite chamber, and "the great tribulation" in the granite blocks which hang over the passage-way through that ante-room, there would need to be another and higher apartment to answer to the heavenly Jerusalem, which the Apocalypse introduces as the crown of all. The piles of ancient rubbish from the building of this pyramid which cover the breast of the hill also add their indications of another chamber of grander materials than the others, and higher up in the edifice. After a rain Prof. Smyth paced about among the gutters which the wash cut into these piles of chips and splinters of stone, to see what he could find. "Towards the top of the heap and just in front of, though at a great distance from, the Pyramid's entrance portal," he found "frequent splinters and fragments of green and white *diorite*." This is a compact, very hard, crypto-crystalline formation, whitish, speckled with black or greenish-black. It is the material of which the celebrated stone statue now in the Boolak Museum is cut. It is not native to the pyramid region,

and could only have been brought there from far, whilst the number of these spalls and fragments intermixed with the earth and other chippings and offal in the process of this pyramid's building would indicate some extensive use of that excellent material in this structure. Their occurrence near the top of the furthest distance of these piles from the Pyramid would show that the use made of this rock was high up in the edifice and toward its completion. But in none of the present openings has anything been found made of diorite, or anything like it. Therefore, Prof. Smyth, in debating over these fragments, says, "I was compelled to gaze up at the Pyramid with its vast bulk, and believe that there is another chamber still undiscovered there, and one which will prove to be the very muniment room of the whole monument."*

And even the way to it may perhaps be found from a suggestion which I draw from the Apocalypse. The numberless multitude before the throne of God (chap. 7 : 9–17) comes "*out of* the great tribulation," and if those granite blocks suspended over the way through the ante-room to the King's Chamber denote the great tribulation, as they so expressively do.

* Life and Work, pp. 187, 188.

the way to a room symbolic of heaven would seem to be directly from those blocks, just where nobody has ever searched for it. Those blocks hang in grooves, and have a boss or knob left on the side as if meant to be slid up for a purpose; and the vision of John would seem to imply that the lifting of them would uncover the way to the room which would be the symbol of glory. A light bore with a rod so directed as to strike behind those blocks would probably reveal whether or not there is such a passage from either side at that point. And until the facts are ascertained by adequate examination, I am inclined to believe, from general analogy and from the correspondence in all other points with the Bible, and especially with the Apocalyptic outlines, that behind those blocks will be found the way to another and superior chamber, situated in the upper centre of the building on the one hundredth course of the masonry. I also anticipate that when it is discovered it will present an exact square, sixteen pyramid cubits every way, with perhaps three distinct entrances on each side, and answering in its prophetic readings to the twenty-first chapter of the Book of the Revelation. Of course this is only a hypothesis, a theoretic persuasion which needs

to be tested by further explorations, but it rests on considerations sufficiently strong to beget in me the belief that it will be verified in fact. Hence I have had the place and proportions of such a room indicated on the diagram.

The Pyramid and the Spiritual Universe.

But man is not the only rational creature God has made. As the interval below, between him and nothing, is filled up with uncounted orders and forms of being, so on rational as well as Scriptural grounds it is part of our common faith that there are many intellectual and spiritual orders above, between him and the infinite Creator. These rank in series over series of angels and archangels, seraphim and cherubim, principalities and powers. And as the Pyramid is a Scriptural image of the Church, so it is also of this whole spiritual universe. Galloway, in his *Egypt's Record of Time*, has noted that "the ascending scale of natures above man was revealed to Jacob in vision. The collective nature of man is, as it were, at the basis of a mighty pyramid of spiritual natures ascending by successive stages to one glorious apex, from which the whole derives unity, from which the whole has pro-

ceeded, and on which it depends for existence. This glorious spiritual pyramid appears to be that which was revealed to Jacob at Bethel, when a solitary traveller on his way to Padan Aram : a mighty ladder or scale of being ascending from man to the highest heaven; a sublime idea of the spiritual universe proceeding from one, and built up into one glorious head, a world not of gross and dead materials, but of living spirit and flame, full of the adoring love and active service of God, at the summit of which the presence of Jehovah was beheld revealed" (pp. 339, 340). And this grand, striking, and truthful conception of the universe bound together and headed up in One supreme original of all, we have here in material form, consolidated in stone, worthy in some measure too of the eternal vastness and magnificence of the subject.

Thus then the Great Pyramid answers throughout to all history and all Revelation. The substance of both Testaments and all the dispensations of God toward man are here traced in unchanging rock, more than five centuries before Moses. How came these things into this pile, and nowhere else on earth but in the Bible? Whence came this sublime science before the days of science,—this knowl-

edge of all history then only in its beginnings,—this understanding of all sacred doctrines and prophecies before all other existing records of them? By what marvellous eccentricities of chance originated these monumental prophecies, this prehistoric picturing of coming ages, these symbolizations of the mysterious Providence of God toward our world for four thousand years, this fore-announcement of the end from the beginning, this sublime petrifaction of the divine word ere ever a chapter of it was traced in our Scriptures? When we find these things in the Bible written long afterwards we call them *inspired*. What then shall we call them when we find them all securely laid up in stone hundreds and thousands of years anterior to that Holy Book, and now opened to us with superadded marvels upon which the Bible scarcely touches? I know not how others may be impressed, but I feel as if I would be shutting my eyes to truth, suppressing the force of evidence, and withstanding demonstration, did I not joyfully admit and embrace the fact that we have here a precious memorial from the same blessed Jehovah from whom we have our glorious Bible, erected by some chosen people whom his own Spirit guided, and at the same time a most

ancient monumental witness to all the holy truths and histories.

And yet the subject is not exhausted. There are various other interesting matters to be considered, all tending to the same conclusion; but I cannot enter upon them now. Reluctantly, I must close again without reaching the end of what needs to be said in a proper presentation of the case. Only one little item more, which seems to belong here, will I yet notice, and with that I conclude this lecture.

The Pyramid and Jerusalem.

If this Pyramid is what it would thus seem to be, it would be natural to infer that it ought to have some connection with or reference to Jerusalem. All the institutes and revelations of God had their chief centre there for more than a thousand years. God made it his own sacred metropolis, the only one he ever had localized upon earth. There his only temple stood. There his holy law was deposited. Thither his people were required to come for the celebration of their most distinguishing services. There was the royal seat of his chosen kings. There was the sacred capitol of his consecrated priests, of his inspired prophets, of his holy scribes. There the glorious

Messiah presented himself to the elect nation. There he died for the sins of the world. There he rose triumphant from the dead. There he ascended into heaven. There he poured out the Holy Ghost. There he inaugurated the Christian Church. There he sent forth his inspired apostles for the conquest of the world to the religion of the cross. Nay, there he is to appear again when he comes the second time as he has promised. And if the Great Pyramid belongs at all to the great system of God's redemptive interpositions it could hardly be wanting in some reference to that "city of the Lord, the Zion of the Holy One of Israel." So at least it appeared to me, and led me to search for the missing indications. I knew that the Pyramid's most distinguished cubit answers to the sacred cubit of Moses; that the capacity measure of the Pyramid's granite Coffer is the same as that of the Ark of the Covenant; that the sabbatic system of the Jews is distinctly noted in connection with the Queen's Chamber; and that the molten sea had proportions of earth-commensuration which also appear in the size of the Pyramid's main chamber. These are indeed remarkable and significant coincidences, but they do not give so direct a reference as I thought ought to exist.

It hence occurred to me to ascertain the exact direction of Jerusalem from the Great Pyramid and to try whether it would fit to any of its interior angles. Having used two different maps to make sure of accuracy, the result came out exactly the same in both, namely, that three of the main inside angles of the Great Pyramid applied to its north side eastward, point directly to Jerusalem! If a cannon-ball were shot from the Great Pyramid's north side at the precise angle eastward as that of the entrance passage computed with the base-line, or that of the main ascending passage computed with the same line, or that of the Grand Gallery computed with the passage to the Queen's Chamber, that ball, could it reach so far, would strike the Holy City!

Of itself this might be passed as of no special significance, but taken in connection with what has been developed in this lecture, the unexpected discovery induced a feeling as if the half-smothered pile with all its burden of centuries suddenly arose out of its sands and rubbish, lifted up its stony hand, and looking the very image of old time, pointed its heavy and half pendent finger to the city of Melchisedek, David, and Solomon, saying as with a voice out of the bottom ages, "Look over

there! Savants of the earth, and all ye that inquire, go yonder! There observe, listen, and wait, and ye shall know whence I am, and whereof I witness!"

"And I heard a loud voice saying in Heaven, Now is come salvation, and strength, and the kingdom of our God, and the power of His Christ: for the accuser of our brethren is cast down, which accused them before our God day and night.

"And they overcame him by the blood of the Lamb, and by the word of His testimony."—Rev. 12: 10, 11.

Lecture Third.

ANALYSIS OF TRADITIONS, OPINIONS, AND RESULTS.

WHATEVER may be ultimately concluded respecting the origin and intent of the Great Pyramid, it is certainly one of the most astonishing works ever produced by man. Apart from all else, the coincidences between it and our most advanced physical sciences, together with the thorough correspondence between it and the Scriptures, as pointed out in preceding lectures, establishes for it a wonderfulness if not a sacredness unequalled by anything outside the sphere of miracle. But the history of traditions and opinions concerning it is quite as remarkable as itself, and also strongly confirmatory of the conclusions towards which we have been advancing. To show this and to indicate some of the attendant results is what I propose in the present lecture.

It is a singular fact and not without significance that whilst this oldest, largest and highest edifice of stone ever piled by human hands

has been before the eyes of the most intelligent portions of the race for more than four thousand years, the learned world has not yet been able to settle what to think of it. Strange to say, it has always been a puzzle and a mystery

The Ancient Traditions.

The Jews up to the Saviour's time had a cherished tradition that this Pyramid was built before the flood. Josephus, the learned scribe, gives it as historic fact that Seth and his immediate descendants "were the inventors of that peculiar sort of wisdom which is concerned with the heavenly bodies and their order. And that their inventions might not be lost before they were sufficiently known, upon Adam's prediction that the world was to be destroyed, they made two pillars, the one of brick, the other of stone. They inscribed their discoveries on them both, that in case the pillar of brick should be destroyed by the flood, the pillar of stone might remain and exhibit these discoveries to mankind." He also adds, "Now this (pillar) remains in the land of Siriad (Egypt) to this day." (*Jewish Antiquities*, i, 2.) Such an idea so strongly rooted in the mind of God's chosen people is very noteworthy, to say the least.

The Arabians had a corresponding tradition. In a manuscript (preserved in the Bodleian Library, and translated by Dr. Sprenger) Abou Balkhi says, "The wise men previous to the flood, foreseeing an impending judgment from heaven, either by submersion or by fire, which would destroy every created thing, built upon the tops of the mountains in Upper Egypt many pyramids of stone, in order to have some refuge against the approaching calamity. Two of these buildings exceeded the rest in height, being four hundred cubits high, and as many broad, and as many long. They were built with large blocks of marble, and they were so well put together that the joints were scarcely perceptible. Upon the exterior of the building every charm and wonder of physic was inscribed."

Massoudi, another Arab writer, gives the same even more circumstantially, and says that on the eastern or Great Pyramid as built by these ancients the heavenly spheres were inscribed, "likewise the positions of the stars and their circles, together with the history and chronicles of time past, of that which is to come, and of every future event."

Another Arabic fragment, claiming to be a translation from an ancient Coptic papyrus,

gives a similar account of the origin of the pyramids, and states that "innumerable precious things" were treasured in these buildings, including "the mysteries of science, astronomy, geometry, physic, and much useful knowledge."

So, too, the famous traveller, Ibn Batuta, says, that "the pyramids were constructed by Hermes, the same person as Enoch and Edris, to preserve the arts and sciences and other intelligence during the flood." And it was by reason of fanciful exaggerations of this same tradition that Al Mamoun made his forced entrance into this edifice.

Of course these accounts cannot be accepted in their literal terms. They are manifestly at fault in various particulars. The very oldest of the pyramids, by its own testimony, was not built till six hundred years after the flood. Seth and Enoch therefore were not its builders, whatever they may have contributed indirectly to it. Nor was the motive for it just the one alleged, though perhaps involving something of the truth. The idea of the storage of material treasures, or of literal inscriptions on the walls and stones, has also been proven erroneous, at least as to what now remains of the edifice. But where so much smoke is there is

apt to be some fire. Nearly every superstition in the world has some truth at the bottom by which it was brought into being, and there is every probability that there is here also some kernel of reality. The pyramids certainly exist, and they exist just where these traditions locate them. The great one also proves itself possessed of a marked scientific character. Much of this science must necessarily have come over from antediluvian times. Six hundred years were too short for mankind to have made all the observations here recorded. Noah had special revelations in the science of measures, mechanics, and all that superior wisdom necessary for the building of a ship larger than the Great Eastern, and capable of weathering a wilder and wider sea than ever was navigated before or since. What he and his fathers knew before the flood he certainly would not leave behind when he embarked for a new world, which it was his conscious mission to people. The implements used in the building of the ark, the knowledge of their uses, and how to manufacture them, together with all that God had taught or man had learned on the other side of the flood, he took with him into the ark, and with the same disembarked on our side of that awful water.

By some of his immediate descendants only a short time after the death, if not within the lifetime of his son Shem, the Great Pyramid was built. Of necessity, therefore, the science by which and to which this pyramid was fashioned, and perhaps the very tools which helped to build the ark, at least the knowledge of how to make and use such tools, came over from beyond the flood, and found imperishable memorial in this monument. Hence, though not built by Seth and the Sethite antediluvian patriarchs, there was still a real connection between it and them—between their science and what it embodies.

And even what these traditions state with regard to the intent of the building is not wholly without basis in reason. It is pretty clear that there was an atheistic and God-defiant science before the flood the same as now, which would necessarily create anxiety on the part of the holy patriarchs to preserve and perpetuate the pure truth as God had given it. Their religious fidelity would involve this, and we know that they were faithful in this respect. As a false worship, an oppressive rule, a corrupt system of weights and measures, and a perverted life in general were set up by Cain and his wicked seed, luring the world to de-

struction, Seth and his posterity, as they "continued to esteem God as the Lord of the universe and to have an entire regard to virtue," held to another theology, science, and system of things very sacred and dear to them, which they would be most religiously concerned to preserve and transmit to remotest generations. Noah as a faithful Sethite would be specially anxious and diligent to inculcate and perpetuate that order, his faithfulness to which had saved him and his house when all the rest of mankind perished. The faithful among his descendants could not but share in the same anxieties, particularly when they saw mankind again relapsing into the old Cainite apostasy. Out of devotion to the truth of God, nothing could be more natural for them than, over against the impious Babel tower, to wish for some permanent memorial to God and the sacred wisdom and teaching which they had from him. Acting thus under the holiest of impulses, especially if aided in it by divine inspiration, as Noah was in the building of the ark, just such a modest but mighty science-laden pillar as the Great Pyramid might be anticipated as the result, and the essential import of these strange traditions thus be realized.

More Modern Opinions.

But over against all such ideas there is a long array of the most diverse and contradictory opinions.

For a long time it has been customary to regard the pyramids as mere monuments of the power and folly of the monarchs by whom they were erected, and of the enslavement of their subjects. Pliny says that they were built for ostentation and to keep an idle people at work. Hales calls them "stupendous monuments of ancient ostentation and tyranny." F. Barham Zincke enlarged on the theory that "capital is bottled-up labor, convertible again at pleasure into labor or the produce of labor;" that as there were no government bonds, consols, and productive stocks in which to invest in the time of the pyramid builders, they might as well invest their barren surplusage in making for themselves eternal monuments, or some safe and magnificent abodes for their mummies, as to conceal it in barren treasuries to tempt other people's covetousness; and that this is the way to account for the pyramids! Robinson refers to them as "probably the earliest as well as the loftiest and most vast of all existing works of man upon the face

of the earth," but thinks "there is little room to doubt that they were erected chiefly if not solely from the vain pride of human pomp and power." Stanley speaks of them as the product of a silly ambition, the study of which can make them only "more definite objects of contempt." To such an estimate Brande has sufficiently answered that "this is a very superficial and prejudiced view of the matter. The varying magnitude of the pyramids, the fact of their being scattered over a space extending lengthwise about seventy miles, and their extraordinary number, appear to show pretty conclusively that they must have been constructed (in their original, at least) from a sense of utility and duty, and not out of caprice or from a vain desire to perpetuate the names or the celebrity of their founders."

Some trace the pyramids to Nimrod, and think they were meant to be towers of security. But the idea of a Nimrodic origin of these structures is a mere surmise, wild and without a particle of evidence looking in that direction. And as retreats for men in case of flood or invasion, no such structures ever could have been thought of by any rational people, and none others could have built them. Destitute of habitable space within, incapable in

their perfect state of being ascended, and furnishing neither standing room nor shelter on their summits, they would be a poor resort for safety in any such emergency.

Mandeville considered them the granaries built by Joseph to store up the products of the seven years of fatness against the succeeding seven years of famine. But nothing could be more ill adapted for a purpose of that sort. They were a thousand times more costly than the worth of all the corn they could hold, and any one of them would require more time to construct than double the number of years Joseph had to prepare for the famine. We also have the highest evidence now that the Great Pyramid, which alone was capable of serving in this line, was built hundreds of years before Joseph was born.

Others have regarded them as astronomical observatories, and some have even figured an imaginary base around each where the students of the sky might sit and contemplate like great heavenly choirs. But that such amazing buildings all in one low place and incapable of being ascended should have been erected merely to furnish sittings for a few star-gazers, for whom any rock or hillock would answer as well, is a little too much for credulity

itself. And the modern uncovering of the Great Pyramid's finish at the base has effectually dispersed forever all these imaginary choirs.

Others have supposed the pyramids intended as artificial barricades against the sands of the desert or the breaking forth of the Nile. But the eye of an observer sees at a glance the paltry absurdity of such an idea. The Nile never had any notion of breaking over this hill of solid rock, and if it had the pyramids were a vain thing to hinder either it or the sands of the desert.

The Tomb Theory.

A more extensively accepted opinion now is that the pyramids were all designed for royal sepulchres "and nothing else," which is doubtless true of most of them. It is possible also that the idea of a tomb for Cheops may have mingled with the original design of the first and greatest of them, though there is no evidence to that effect. It may have been given out for a tomb for him as a mere blind to the nation at large, but in any event the tomb idea never could have been more than subordinate and incidental.

We know now that this pyramid was built

during the reign of Cheops, in the so-called Fourth Dynasty of Egyptian Kings. But it is nearly as certain that Cheops never was entombed in it. The account given by Herodotus is sometimes quoted in proof that he was, but it is clearly a misunderstanding. That account says that Cheops was buried in some subterraneous place where "the Nile water introduced through an artificial duct surrounds an island." But there is not a single opening either in or under the Great Pyramid which is not far above the highest Nile level. That Cheops never was entombed in the so-called King's Chamber is therefore certain in so far as what Herodotus tells about it is accepted. Personally he knew nothing. He only records what was told him. And the priest from whom he got his statement either was as ignorant as himself, or Cheops never was buried in this pyramid. Diodorus says positively that Cheops was not buried here, but in some obscure and unknown place. For six hundred years after Al Mamoun broke open this pyramid the Arab writers who tell of the feat, say not a word of any human remains or indications of sepulture being found. Shehab Eddin Amed Ben Yahiya, on the contrary, says that "nothing was discovered as to the motive or time of its

construction." Massoudi tells of certain findings, such as colored magic stones, columns of gold which nobody could move, images in green stone, and a cock with flaming eyes, which stories none but a Moslem can believe; but says not a word of the finding of any man or any evidence of the use of the place as a tomb. And not less than a dozen of the best European authors on the subject, from Helfricus to Sir Gardiner Wilkinson's Guide Book to Modern Egypt, though some of them believe that the Great Pyramid was intended for a sepulchral monument, agree in stating that there is no proof that anybody ever was entombed in it.*

* Helfricus (1565) and Baumgarten (1594) considered the Great Pyramid a tomb, but held that no one was ever buried in it. Pietro Della Valle (1616), Thevenot (1655), and Maillet (1692) give it as the common belief that no one ever was therein entombed. Vausleb (1664) could find no clue by which to determine why this pyramid was built. Shaw (1721) denies that it ever was a tomb or ever was intended to be one. Jomard (1801), having studied all the features of this edifice, and compared them day by day with all the facts and forms of old Egyptian pyramids, wrote concerning it, "Everything is mysterious, I repeat it, in the construction and distribution of this monument, the passages oblique, horizontal, sharply bent, of different dimensions!" "We are not at all enlightened either upon the origin or the employment, the utility or any motive whatever for the Grand Gallery and various passages." Sir G. Wilkinson says, "It may be doubted whether the body of the king was really deposited in the sarcophagus" as he calls it.

But if this edifice was reared to be a royal sepulchre, why was it not used as such? Very curious are the explanations to which the tomb theorists have resorted to account for the fail ure. Diodorus among the old writers, and Baumgarten among the more modern ones, say, that the people of Egypt were so enraged at the sufferings endured from the builders of the two greatest pyramids, and at their various violent actions, as to threaten to tear them out of their sepulchres, whereupon "they both charged their relatives at their death to inter them secretly in some obscure place." To this Colonel Vyse has conclusively answered, "If Cheops reigned fifty years, and had sufficient power to construct the Great Pyramid, it can scarcely be supposed that his body was not deposited in it [if so intended], particularly as his successor is said to have reigned fifty-six years, and to have erected a similar tomb for himself, which he could scarcely have done had his predecessor's tomb been violated or any doubt have existed about the security of his own."

Helfricus and Veryard get over the difficulty

And Mr. St. John does not consider the Coffer a sarcophagus at all, and thinks the Great Pyramid never was and never was meant to be a tomb.

by assigning the Great Pyramid to that Pharaoh who perished in the Red Sea while pursuing the departing children of Israel. As that monarch's body was never recovered, they say of course his sepulchre never was used! Still others explain that the tomb was Joseph's, and became vacant at the time of the Exodus, as his brethren took his body with them when they went up to the land of promise. But unfortunately for these explanations, the Great Pyramid was built some six hundred years before Moses and several hundred years before the viceroyalty of Joseph.

The truth is that the tomb theory does not fit the facts, the traditions, or any knowledge that we have on the subject. It is wholly borrowed from the numerous later pyramids, ambitiously and ignorantly copied after it, which *were* intended and used for royal sepulchres, but with which the Great Pyramid has nothing in common, save locality and general shape. In all the examination to which it has been subjected, whether in ancient or modern times, and in all the historic fragments concerning it, there is nothing whatever to give or to bear out the idea that its intention was simply that of a royal sepulchral monument, or that can legitimately raise the tomb

theory any higher than a possible but very improbable *supposition.*

Something more than a Tomb.

It is also important in this connection to note that something wholly distinct from a mere sepulchre, or something additional and of much greater significance, has always haunted the convictions of those who have most profoundly studied this wonderful structure.

Sandys gives place to the idea of a tomb, but considers it a tomb built with special reference to the symbolization of spiritual doctrines and hopes, together with "conceits from astronomical demonstrations." Greaves accepts it for a tomb, but one framed with intent to represent spiritual ideas. Shaw denies its tombic character altogether, and pronounces it a temple of religious mysteries. Perry admits that it may have served as a royal tomb, but had special reference to sacred beliefs. Jomard gave but little credit to the treasure theory of the East or the tomb theory of the West, and considered this pyramid likely to prove itself gifted with something of great value to the civilized world, particularly in the matter of measures and weights. Wilkinson considers

the pyramids tombs, but is persuaded that some were "intended for astronomical purposes." Mr. St. John holds them as meant for religious uses and symbolisms. Agnew takes them as tombs, but at the same time as embodiments of science—"emblems of the sacred sphere, exhibited in the most convenient architectural form"—a squaring of the circle outside (which is true only of the Great Pyramid) and a setting forth of various geometric, astronomic, and mathematical mysteries inside. Sir Isaac Newton considered them sources of very important information on the subject of measures. Sir John Herschel was persuaded of the Great Pyramid's astronomical character, and found in it standards of measure which he urged England to adopt in preference to any other on earth. Beckett Denison admits it to be a highly scientific monument of metrology, mathematics, and astronomy. Hekekyan Bey, of Constantinople, in a volume published in 1863, ignores the idea of the granite Coffer being a sarcophagus, and speaks of it as "the king's stone," deposited in its sanctuary as a record of a standard of measure. Proctor agrees that it is "highly probable" that the builders of the Great Pyramid sought "to represent symbolically in the proportions of the

building such mathematical and astronomical relations as they were acquainted with," and "may have had a quasi scientific desire to make a lasting record of their discoveries, and of the collected knowledge of their time." And since what has been written and pointed out by John Taylor, Piazzi Smyth, Sir John Vincent Day, Rev. T. Goodsir, Captain B. F. Tracy, Mr. James Simpson, Henry Mitchell, Dr. Alexander Mackey, Charles Casey, Rev. F. R. A. Glover, Hamilton Smith, J. Ralston Skinner, and others, within the last fifteen years, we can but wonder that any one at all read up on the subject should think of withholding from this colossal monument the award of something vastly more than a mere tomb.

That subterranean chamber cut deep into the solid rock would seem to indicate a tomb, but that chamber never was finished, and no one pretends that it was ever used for sepulture. It must have been meant for some other purpose. A vast tumulus, solidly built, with but few and narrow openings, terminating in finely polished rooms in its interior, would seem to agree with the idea of a grand sepulchre, but when we find in it a transcendent geodesic plan of location, equally dividing the

earth surface between the equator and the north pole, palpably marking the centre of all habitable land distribution on the globe, and giving the best meridional line for the zero of latitude for all nations, surely we ought to begin to think of something else. A square with four sloping sides built up to a point in the centre, would seem to be a proper device for an enduring royal mausoleum, and hence the same was long accepted in Egypt for sepulchral monuments of the kings, but when we find in the first and original of them a perfect geometric figure, so framed that the four sides of its base bear the same proportion to its vertical height as the circumference of a circle to its radius, that each of its base-lines measures the even ten millionth part of the semi-axis of the earth just as many times as there are days in the year, that its height multiplied by 10^9 gives the mean distance between the earth and its great centre of light, that its unit of length is the even five hundred millionth part of the polar diameter of the globe we inhabit, that its two diagonals of base measure in inches the precise number of years in the great precessional cycle, that its bulk of masonry is an even proportion of the weight of the earth itself, and that its setting and shaping are

squared and oriented with microscopic accuracy,—nothing of which is to be found in the scores of neighboring pyramidal tombs,—by what law of right reason are we to dismiss from our thoughts every idea but that of a mere sepulchre? A polished stone coffer, conveniently deep, and wide, and long to accommodate the body of a man, and put up in noble place as here, would seem to bespeak a royal sarcophagus, but when we find that Coffer of the utmost plebeian plainness, quite disproportioned to such a purpose, devoid of all known covering, ornament, inscription or sepulchral insignia, incapable of being placed in its chamber with a body in it, is there not room for rational doubt that it was ever meant or used for a burial casket? And when we perceive in it a most accurately shaped standard of measures and proportions, its sides and bottom cubically identical with its internal space, the length of its two sides to its height as a circle to its diameter, its exterior volume just twice the dimensions of its bottom, and its whole measure a definite proportion of the chamber in which it was put when the edifice was built, we may well wonder what all such unparalleled scientific elaborations have to do with a mere tomb! The inclined entrance

of a fitting size to receive a coffin, and down which a coffin could be conveniently slid to some chamber in the depths below, would be in keeping with a tombic intent, but when we find it terminating below in what never was a burial-chamber, and turned above in a sharp angle which no coffin such as the Coffer could pass, and that entrance most inconveniently located just to bring it into the plane of the meridian at an angle to point to the lower culmination of a pole star at the same time that the Pleiades are on the meridian above,—does it not become necessary to think of something more than a mere tomb, if not to abandon that idea altogether? All the other pyramids of Egypt were meant for tombs, but none of them have any upward passages or upper chambers. The Grand Gallery in this edifice, so sublime in height, so abrupt in beginning and termination, so different from all the other passages before or beyond it, so elaborately and peculiarly contrived and finished in every part, is absolutely incomprehensible on the tomb theory or on any other, save that of a high astronomical, historical, and spiritual symbolism, having nothing whatever to do with the entombment of an Egyptian despot. And when we find in this edifice throughout, one great system of

interrelated numbers, measures, weights, angles, temperatures, degrees, geometric problems, cosmic references, and general geodesy, which modern science has now read and verified from it, reason and truth demand of the teachers of mankind to cease writing that "no other object presented itself to the builder of the Great Pyramid than the preparation of his own tomb."

That all these things should appear in a great metrologic, scientific, and symbolic structure, meant to memorialize the most important features of universal nature, history, and theology, we can easily understand. But that they should turn up in what was never meant to be anything but a tomb, as Lord Valentia, Shaw, Jomard, and others have submitted, is beyond all rational comprehension or belief. Mere literary Egyptologists, whose world of inquiry is bounded by classic tombs, Siriadic sepulchres, and heathen temples,—a few sneering scientists, who find here an impediment to their atheistic philosophies,—consequential theologues and pedants, who have reached the boundaries of wisdom,—and all the wise owls of stereotyped learning, ensconced in their hollownesses of decay,—may pooh-pooh and hoot, but if this pyramid was meant for a tomb

it is the most wonderful sepulchre ever constructed, the mere accidents of which are ten thousand-fold more magnificent in wisdom, interest, and worth to mankind, than all the tombs and Pharaohs of all the dynasties, and all their other works besides,—a tomb, too, to which there has now fortunately come a resurrection morning, second only to that which split open the rocks of Calvary and demonstrated a glorious immortality for man.

Not a Temple of Idolatry.

Brande has expressed the opinion, that "if we had sufficient knowledge of antiquity, it would probably be found that the motives which led to the construction of the pyramids were, at bottom, nearly identical with those which led to the construction of St. Peter's and St. Paul's, and that they are monuments of religion and piety, as well as of the power of the Pharaohs." To whatever extent this was the fact with regard to the Great Pyramid, there is no evidence that it was built for an idol temple, whether to Athor, as suggested by Mr. St. John, or to Cheops, as insinuated by Mr. Osburn. Certain Eastern peoples may have made pilgrimages to it, as the Western people do now, or as the Queen of Sheba came

to hear the wisdom of Solomon. The Egyptians themselves may afterwards have accepted it as "the great temple of Suphis," and even appointed priests for the celebration of his worship in connection with it. But that can be much better explained in other ways than by assuming that Cheops built it either as a tomb for his body or as a temple for the honor of his soul.

Egypt was a hotbed of idolatry from the beginning. Its people began by the worship of heroes and heavenly bodies, and ended in the worship of bulls, and goats, and cats, and crocodiles, and hawks, and beetles. Their false religion was in full sway when Cheops was born. Lepsius tells us that the whole land was full of temples, filled with statues of gods and kings, their walls within and without covered with colored reliefs and hieroglyphics in celebration of the virtues of their hero gods and their divine and ever faultless children. "Nothing, even down to the palette of a scribe, the style with which a lady painted her eyelashes, or a walking stick, was deemed too insignificant to be inscribed with the name of the owner, and a votive dedication of the object to some patron divinity." And yet, here is the Great Pyramid, the largest, finest, and

most wonderful edifice in all Egypt, situated in the midst of an endless round of tombs, temples, and monuments, all uniformly loaded down with these idolatrous emblems and inscriptions, and yet in all its thirteen acres of masonry, in all its long avenues, Grand Gallery, and exquisite chambers, in any department or place whatever, there has never been found one ancient inscription, votive record, or the slightest sign or shred of Egypt's idolatry! In the centre of the intensest impurity, the Great Pyramid stands without spot, blemish, or remotest taint of the surrounding flood of abominations,—like the incarnate Son of God, sinless in a world of sinners. And to hold such a monument to be itself a temple of idol worship is like calling Christ a minister of Beelzebub.

Historic Fragments.

Passing then to the historic fragments relating to the subject, we find additional reason for the same conclusions.

It is given as a fact, and specially emphasized, that during the building of the Great Pyramid the government of Egypt was strangely and oppressively adverse to the established idolatry of the nation. Cheops stands

charged on all sides as at that particular time very "arrogant towards the gods," having shut up the temples, interdicted the customary worship, cast out the images to be defiled on the highways, and compelled even the priests to labor in the quarries. Hence the indignant hierophant whom Herodotus consulted, said, "The Egyptians so detest the memory of these kings that they do not much like to mention their names." It thus appears that Cheops was the positive foe and punisher of idolatry at the time this building was being put up, which fact alone wholly and forever sweeps away all idea of this pillar having been erected for any idol's temple or as a votive offering to any god or gods of the Egyptian Pantheon.

It further appears from these fragments, along with other indications, that after the Great Pyramid was completed, late in his life, Cheops relapsed into the old Egyptian idolatry, became a devotee of the very worship which he had so sternly suppressed, and not only reopened the temples, but actually put forth a book on the gods of his country, which was highly esteemed for ages after.* How,

* See Osburn's *Mon. Hist. of Egypt*, vol. i, p. 277. Also, Shuckford's *Sac. and Prof. Hist.*, vol. i, p. 157. Also, Lenormant and Chevallier's *Anc. Hist. of the East*, vol i, p. 207.

then, did it happen that during the thirty or more years in which the Great Pyramid was building, this man, born and reared in idolatry, and dying a devôt of it, was the suppressor of its temples, the enslaver of its priests, and the defiler of its gods? The answer may perhaps be found in another particular with which these fragments make us acquainted.

During the building of the Great Pyramid there was a noted stranger abiding in Egypt, and keeping himself about the spot where the building was going on. The priest consulted by Herodotus describes him as a shepherd, to whom rather than to Cheops the Egyptians attribute this edifice. The precise words recorded by Herodotus are, "They commonly call the pyramids after *Philition*, a shepherd who at that time fed his flocks about the place." (Rawlinson's *Herodotus*, vol. ii, p. 176.) Here is a most remarkable and significant item of information,—an unknown but conspicuous stranger, possessed of flocks and herds, abides about the locality of the Great Pyramid for all the years it was in building, and is so related to the work that all Egypt for more than seventeen hundred years considered him its real originator and builder, Cheops merely furnishing the site, the workmen, and the

materials. Nor was he some great professional architect, whom Cheops heard of and sent for to build him a sepulchre. The account says he was *a shepherd*—a keeper of flocks—and hence of an order whose business lay in the line of keeping sheep, but not in the line of building pyramids to the order of foreign kings. He is called "*Philition*" or *Philitis*. This would seem to imply that he was one of a peculiar and special religious brotherhood, or that he was a Philistian,—one who came from or located in Philistia.

There were several classes of Philistines, different in religion and race. The Philistines of Jewish times are of unsavory odor. But it was not so with certain earlier Philistines whom the Scriptures mention with honor as a people specially favored of Jehovah. When Israel was on the way to Canaan, in order to revive their drooping confidence, God told them of a much earlier people whom he had in like manner conducted up from Egypt. He calls them "the Caphtorims which came out of Caphtor" (Deut. 2 : 23). This Caphtor was the very region of Egypt in which the Great Pyramid stands, and these Caphtorims from Caphtor, God elsewhere calls "*the Philistines*," whom *He* "brought up from Caphtor."

(Amos 9 : 7.) So that not only from Herodotus and his informant, but from the Bible itself, we learn of *Philistines* once in the neighborhood of the Great Pyramid, who were the objects of the Divine favor, and whom *God* brought up from thence, as he long afterwards brought up the children of Israel.*

* It has been found very difficult to trace the origin and history of this early people. The Philistines of the time of the Judges, and of David, were a long subsequent people, who do not appear in the settlement of Israel under Joshua. They are not mentioned in any of the assaults and conquests of the Jews on their first arrival. Ewald considers this conclusive against their being inhabitants of Palestine at that time. Still, in the time of Abraham, we read of Philistines in Canaan. (Gen. 21 : 32–34.) Abraham was on friendly terms with them, entered into a covenant of peace with them, and "sojourned many days" with them. They feared and reverenced the true God. (Gen. 21 : 22.) Ewald agrees that their language was Shemitic. They were an organized and powerful people. Their sovereigns had the title of *Abimelech*, a Hebrew word, meaning *Father King*, as the sovereigns of Egypt were all called *Pharaoh*, and the sovereigns of Rome, *Cæsar*. The Caphtor, whence they came, Stark makes the Delta of Egypt, and the Caphtorims some early part of the Hyksos or shepherd kings, known to Egyptian history. Dr. Jamieson says, "There is every reason to believe the sovereigns were connected with the shepherd kings of Lower Egypt, and were far superior in civilization and refinement to the Canaanitish tribes around them." (Com. on Gen. 20 : 2.) The Phœnician traditions say they came from Arabia. They differed from the Egyptians in dress and manners, as proven by the monuments; and also in language, laws, and religion, as justly inferable from the Bible notices of them. The intent of the reference to them in Amos 9 : 7 plainly is to show that Israel was not the only people which

There is also another remarkable fragment bearing on the subject. Manetho, an Egyptian priest and scribe, is quoted by Josephus, and others, as saying, "We had formerly a king whose name was Timaus. In his time it came to pass, I know not how, that the Deity was displeased with us; and there came up from the East in a strange manner men of an ignoble race, who had the confidence to invade our country, and easily subdued it by their power without a battle. And when they had our rulers in their hands they demolished the temples of the gods." (See Cory's *Fragments*, p. 257.) This Timaus of Manetho is doubtless the same person as the Chemmes of

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had been divinely led from one country to settle in another. R. S. Poole considers the allusion as seeming to imply oppression prior to the migration, but that is not necessarily involved. There is no allusion to deliverance, but simply to a bringing of them thither by special divine direction. Abimelech in Gerar, and Melchisedec in Salem, would seem to be closely related as to religion, language, and race. They were perhaps the representatives of two branches of one and the same people, who came into Palestine at one and the same time, from one and the same place in Egypt, under one and the same motive, close about the time of the completion of the Great Pyramid. There certainly is nothing to disprove this conclusion. The name of Abimelech's general-in-chief, *Phicol*, though made up of Hebrew syllables, is not a Hebrew word, but seems to bear an Egyptian influence in its formation, as Pi-hahiroth, Pi-beseth, Pi-thom. It is most likely a designation of office, bearing traces of some connection with Egypt, but not of it.

Diodorus, the Cheops of Herodotus, and the Chufu or Suphis of the monuments. The description is peculiar, and though tinctured with Egypt's proverbial hatred to this class of shepherds, indicates a wonderful influence won over the king by purely peaceable means, which could hardly have been less than supernatural. Manetho himself refers it to the pleasure and displeasure of the Deity, and further adds, that this people "was styled *Hyksos*, that is, *the shepherd kings*," and that "some say they were Arabians."*

Manetho wrote about three hundred years

* Wilford, in his *Asiatic Researches*, vol. iii, p. 225, gives an extract from the Hindoo records which seems to sustain, in some important particulars, this fragment of Manetho. The extract says, that one *Tamo-vatsa*, a child of prayer, wise and devout, prayed for certain successes, and that God granted his requests, and that he came into Egypt with a chosen company, entered it "without any declaration of war, and began to administer justice among the people, to give them a specimen of a good king." This Tamo-vatsa is represented in the account as a king of the powerful people called the *Pali*, *shepherds*, who in ancient times governed the whole country from the Indus to the mouth of the Ganges, and spread themselves, mainly by colonization and commerce, very far through Asia, Africa, and Europe. They colonized the coasts of the Persian Gulf, and the sea-coasts of Arabia, Palestine, and Africa, and were the long-haired people called the Berbers in North Africa. They are likewise called *Palestinæ*, which name has close affinity with the *Philition* of Herodotus. These *Pali* of the Hindoo records are plainly identical with some of the Joktanic peoples. See *infra*.

before Christ, and his statements are somewhat mixed with the history of another set of shepherd kings of a long-subsequent dynasty, but the ground of the story belongs to the period of Cheops and the Great Pyramid, for it was then that this peaceable control was obtained over the reigning sovereigns by a shepherd prince, the temples closed, the gods destroyed, and the people oppressed with labor for the government. Manetho says that these "Arabians" left Egypt in large numbers, but instead of going to Arabia, they went up to "that country now called Judea, and there built a city and named it Jerusalem."

It would thus appear that the shepherd prince connected with the building of the Great Pyramid was from Arabia, and subsequently located in Palestine (Philistia), hence probably called "*Philition*"—the Philistian. The connection of him with the building of Jerusalem is very remarkable, and may serve to identify him with some Scripture character. Josephus quotes the passage as referring to the Jews, but that can hardly be the case. The Jews did not originally build Jerusalem. They did not even have possession of it till the time of David, about five hundred years after the Exodus. Jerusalem existed, and wore at

least a part of its present name, full a thousand years before David. As early as Abraham's time it was the seat of a great king, to whom Abraham himself paid reverence and tithes, and from whom he accepted blessing and communion, as "priest of the Most High God." With reference to his character and office, the Bible calls him MELCHISEDEC, plainly a descriptive and not a proper name, he being first "king of righteousness, and after that also king of Salem." (Heb. 7 : 1, 2.)

WHO WAS MELCHISEDEC?

An illustrious personage thus breaks upon our notice with all the sudden grandeur of the Great Pyramid itself. Who he was has been something of a question for thousands of years,—a question which perhaps cannot be positively answered. Kohlreiff, in his *Chronologia Sacra* (Hamburg, 1724), as cited by Wolfius, identifies this personage with the patriarch Job. There is also more to sustain this view than any other ever presented.

The time is the same. On general internal evidences, Dr. Owen (in *Theologoumen.*), assigns the Book of Job to the period immediately preceding Abraham. The length of Job's life places him in the pre-Abrahamic age of Serug,

Reu, and Peleg.* He evidently lived before the Exodus, and before the destruction of Sodom and Gomorrah, for though the Book of Job refers to Adam, the fall, and the deluge, there is no allusion whatever to the awful disaster to the cities of the plain, the Sinaitic laws, or any of the miraculous events of Israelitish history. Such an omission in such a discussion, in the vicinity of these great

* "The lives of mankind were so much shortened ere the days of Abraham, that though he lived but one hundred and seventy-five years, yet he is said to have 'died in a good old age, an old man, and full of years.' Peleg, who was five generations before Abraham, lived two hundred and thirty-nine years. Reu, the son of Peleg, lived as many. Serug, the son of Reu, lived two hundred and thirty. But the lives of their descendants were not so long. The LXX in their translation say that Job lived in all two hundred and forty or two hundred and forty-eight years. Nahor, the grandfather of Abraham, lived but one hundred and forty-eight years. Terah, Abraham's father, lived two hundred and five. Abraham lived one hundred and seventy-five, Isaac lived one hundred and eighty, and the lives of their children were shorter. If, therefore, Job lived two hundred and forty or two hundred and forty-eight years, he must have been contemporaneous with Peleg, Reu, or Serug, for men's lives were not extended to so great a length after their days. He lived one hundred and forty years after his affliction, and when that affliction came he had seven sons and three daughters, and all his children seem to have been grown up and settled in life from the beginning of his misfortunes" His age could not therefore be less than two hundred years at the least. See Shuckford's *Sac. and Profane History*, vol. i, p. 263, 264, who also makes Job contemporaneous with Suphis (Cheops)

occurrences, could not happen if these events had preceded it. Job speaks of the rock yielding him a spring of mineral oil (29 : 6), and such oilsprings there evidently were in the region of Sodom and Gomorrah prior to the great burning of those cities, and the earth under and about them; but they have never since been found. Moses alludes to the same, but only by way of metaphor drawn from the Book of Job, for no such circumstance ever literally occurred in the history of Israel. Those oilsprings were drained and exhausted when those cities burned. Besides, sundry astronomical calculations made from notices of constellations contained in the Book of Job fix the time of the patriarch's great trial contemporaneous with Melchisedec.*

* Four constellations are mentioned together in the Book of Job 9 : 9, and 38 : 31, 32, and in four opposite quarters of the heavens, *Kimah*, the Pleiades in the constellation Taurus; *Kesil*, the equinoctial *nodus* in Scorpio, the name being perpetuated in the Chaldean Kislev or November; *Mazzaroth*, Sirius or literally Egypt's star sign; and *Ish*, Aquarius, who in a manner revenged himself on the sons of men in the deluge. These four are named in their oppositions, and so in Job's day, they correspond to the two equinoctial and the two solstitial constellations. *Kimah* answers to the vernal equinox, *Kesil* to the autumnal, and *Mazzaroth* corresponds to the summer solstice, and *Ish* to the winter solstice. President Goguet, in his *Origin of Laws*, a translation of which was published in Edinburgh, in 1761 (the Paris ed. of 1758), makes the calculation by the

The country of the one is also that of the other. Abraham met Melchisedec in Palestine, but no one claims that he was born and reared there. There were important Shemitic migrations hitherward prior to that of Abraham.† In the *Chronicon Paschale* the tradition

precessional cycle, and says that it fixes the epoch of Job's trial in the year 2136 B.C., which would be just thirty-four years after the building of the Great Pyramid. Dr. Brinkley, of Dublin, repeated the calculation, and brought it out somewhere about 2130 B.C. Dr. Hales adopts the calculation by Brinkley, and refers to another calculation on the same data by Ducoutant, in a Thesis published in Paris, in 1765, which gives the same within forty-two years. Such a coincidence, says Wemyss, is very striking, and the argument deduced from it, if well founded, would amount nearly to a demonstration.

† "The primeval Canaanites were of the race of Ham, and no doubt originally spoke a dialect closely akin to the Egyptian, but it is clear that before the coming of Abraham into their country they had by some means become Shemitized, since all the Canaanitish names of the time are palpably Shemitic. Probably the movements from the country about the Persian Gulf, of which the history of Abraham furnishes an instance, had been in progress for some time before he quitted Ur, and an influx of emigrants from that quarter had made Shemitism already predominant in Syria and Palestine at the date of his arrival."—Rawlinson's *Herodotus*, vol. i, p. 537.

Ewald, in his *Hist. of Israel*, argues to the same effect. He says, "It is clear that there was here a primitive people which once extended over the whole land of the Jordan to the left, and to the Euphrates on the right, and to the Red Sea on the south," and that "these people," who had very largely displaced the old Canaanites in Palestine, "were of Shemitic race."—Vol. i, p. 231.

Hence, as Wilkins observes, Abraham on his arrival found the population consisting, at least in a very large measure, of

is received with strong assurance, that Melchisedec, like Abraham, came from beyond the Jordan. Nor is there any doubt of Job's having come from that same mysterious "East."

In general character and position, Job and Melchisedec appear to be one and the same. Paul calls on his Jewish readers to "consider how great this man (Melchisedec) was," and of Job the sacred record is, "This man was the greatest of all the men of the East." Melchisedec was "priest of the Most High God," and of Job it is written that he sent and offered burnt-offerings for his sons and daughters "continually." Melchisedec was a princely personage—"King of Salem;" and all agree in assigning a princely rank to Job. It remains a question till now, whether he was not a real "king," many maintaining that he was.

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tribes with which he would have close affinities of blood and language. Hence, also, we have no hint in the Biblical narrative that points to any difference of language, such as we often have when the Jews came in contact with nations whose speech was really unintelligible to them, as the Egyptians (Psalm 81 : 5, 114 : 1). On the contrary we find Abraham negotiating with the children of Heth, making a treaty with Abimelech, Jacob and his sons communing with the people of Shechem, Israel's spies conversing with the inhabitants of the land, and Solomon corresponding with Hiram, without the slightest reference to the need of any interpreter between them. See Wilkins's *Phœnicia and Israel*, pp. 8–10.

He certainly was at least a great emir. Melchisedec was a worshipper of the one true God, outside of the Abrahamic line, and the same is true of Job. From these and other coincidences it would seem that in Melchisedec, King of Salem, we do really meet the great patriarch of Uz, near the end of those one hundred and forty years of glory which succeeded his sore affliction.

The genealogical tables also supply a name which would seem to indicate the existence of an Arabian Job, who appears at the right time and in the right connections to be this same identical patriarch. In the tenth of Genesis, the sacred historian departs entirely from his usual method, in naming the thirteen sons of Joktan, as if for the special purpose of reaching the last in the list.* He sets down

* "The design of Moses after he has completed the narrative of the dispersion of the third and fourth generations of the descendants of Noah, and thus related the ancestry of the chief nations of the world, undoubtedly was to continue the line of Shem to that of Abraham only. All interest in the other patriarchal families appears to have ceased; he takes no notice of any but that of Joktan. The family of Joktan were not the ancestors of the Messiah; neither were any of the sons of this patriarch so peculiarly distinguished in the subsequent history of Israel, that the enumeration of their names only might have been anticipated in this genealogy. But nothing is written in the Holy Scriptures without an object, and in the absence of any other object for which Moses deviated from his plan, and

that name as *Job-ab*, which is quite capable of being read *father-Job*, in allusion to some such position and career as that of the great patriarch of Uz, or Melchisedec. Alterations were likewise made in the names of Abraham and Sarah in allusion to their special calling and office. The seventy translators from tradition, most of the Hebrew authors, Origen, the Coptic version of Job, the Greek fathers, and various modern writers, represent *Job-ab* and *Job* as one and the same name. In that case we would here have a Job, a veritable Arabian, a descendant of Eber (through Joktan, as Abraham through Peleg), and hence a true *Hebrew* in the older and wider sense, who answers well to all we know either of Melchisedec or the Uzean patriarch.

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recorded the names of the sons of Joktan only, terminating the list with the name of Job-ab or Job,—I conclude that his design was to tell us that the Job who was the youngest son of Joktan was the Job who lived in the land of Uz, though he was not born there, and who suffered and was tempted as the Book of Job has recorded. The sons of Joktan were enumerated that the name of Job might be placed before the children of Israel as the witness to the truth of those doctrines which their patriarchal ancestors received, which Moses taught, and which the Church of God in all ages has believed."—**Dr. Townsend's Bible, vol. i, p. 181.**

limest section of the inspired records,—a grand monument of patriarchal life, manners, and theology,—evidencing a knowledge of earth and sky, of providence and grace, and a command of thought, sentiment, language, and literary power, which no mere man has ever equalled. In it we find a familiarity with writing, engraving in stone, mining, metallurgy, building, shipping, natural history, astronomy, and science in general, showing an advanced, organized, and exalted state of society, answering exactly to what pertains above all to the sons of Joktan, whose descendants spread themselves from Upper Arabia to the South Seas, and from the Persian Gulf to the pillars of Hercules, tracking their course as the first teachers of our modern world with the greatest monuments that antiquity contains.

The Primitive Civilizers.

It has become the fashion to refer all this to Arabian Cushites, or a people of Hamitic blood, but it is one of the blunders of the would-be wise. Because the name of Cush, usually rendered Ethiopia, became early attached to some undefined portions of Arabia, and because the children of Canaan originally settled in Palestine, therefore everything relat

ing to prehistoric Arabians and dwellers along the Mediterranean shores must needs be credited to the children of Ham, though it should leave to the Shemites scarce a place on earth! Such a theory may have its day, but there is every evidence, biblical and secular, literary and monumental, that the greatest and mightiest population of the ancient Arabia was mainly, if not exclusively, of pre-Abrahamic Shemitic stock. The tribes which possessed it were mostly of the seed of Joktan, son of Eber, till the descendants of Abraham through Esau and Keturah, and the descendants of Lot, began to fill in from the northwest.* These Joktanites were the true Arabians, and the superior people who occupied the most important portions of the country, populated its shores, gave it their Heberic language, cultivated every interest of human society and greatness, planted their colonies in Eastern Africa, around the whole eastern coast

* "Ethnologers are now agreed," says Rawlinson, "that in Arabia there have been three distinct phases of colonization—first, the Cushite occupation, recorded in Gen. 10 : 7; secondly, the settlement of the Joktanites, described in verses 26–30 of the same chapter; and thirdly, the entrance of the Ishmaelites, which must have been nearly synchronous with the establishment of the Jews in Palestine."—Rawlinson's *Herodotus*, vol. i, p. 357

of the Mediterranean, and westward as far as Carthage, the Guadalquiver, and the shores of the Atlantic. They were

> The true ancient Erythræan stock,
> E'en that sage race who first essayed the deep,
> And wafted merchandise to courts unknown;
>
> The first great founders of the world,
> Of cities, and of mighty states, and who first viewed
> The starry lights, and formed them into schemes.*

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* The names of the progenitors of these peoples, and the notices we have of them and their descendants, abundantly indicate all this.

Almodad means *the measurer*, and the Chaldee paraphrase of Onkelos and Jonathan attests that he was accounted the inventor of geometry, and the man who lined or measured the earth with lines; hence, also a great astronomer.

Of *Sheleph*, the same paraphrase says that he led forth the waters of rivers, that is, instituted canals, and operated in water-works, perhaps the inventor of water-mills.

Hazarmaveth gave his name to a country which still bears it, and was, according to tradition, a great grammarian.

Jerah, the fourth son of Joktan, who is called *Ierab* in the ancient Arabic records and traditions, is the man from whom we have the name of *Arabia*, the land of Ierab. He gave his name to a province of Tehama, in which he settled, and thence it became extended to the country in general, which the natives still call the Peninsula of Ierab, son of Joktan, whom the Arabians call Kahtan. The Jerachæans were growers of grains, miners, and refiners of gold.

Uzal peopled the great country of Yemen, "famous from all antiquity for the happiness of its climate, its fertility, and riches." Its capital, *Sanaa*—the city of *learning*—vied with Damascus in the abundance of its fruits, and the pleasantness of its water. His descendants were manufacturers, merchants, and travelling traders, whom Ezekiel refers to as present in the fairs of Tyre, with possessions of bright iron, cassia, and calamus.

Nor does it argue anything against Job's being Joktan's son, that in the Mosaic or sub-

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Dikla was the father of a great tribe of traffickers in aromatics.

Obal peopled the southern extremity of Arabia, whence colonies crossed the Straits of Babelmandeb, and took possession of the bay still called after him, the *Avalitic*. His descendants were great merchants, and carried on large trade in the best myrrh, and other odorous drugs, also in ivory, tortoise-shell, tin, wheat, and wine.

Sheba was the father of one of the tribes of the Sabeans. There was a tribe of Cushite-Sabeans, whose vulgar depredations are referred to in the Book of Job, and also a later tribe headed by a son of Jokshan, grandson of Abraham. The Joktanic Sabeans were located near the Red Sea, and were the richest of all the ancient Arabians in gold, silver, and precious stones. Ezekiel mentions them as trading with ancient Tyre. They were metallurgists, lapidaries, and dealers in all rare luxuries. They were among the wisest and most intelligent, as well as the richest and most enterprising of ancient peoples. It was their queen who came to hear the wisdom of Solomon, and from among them, according to the Egyptian accounts, there came up delegations to visit and view the Great Pyramid as if comprehending and reverencing it as no Egyptians ever did.

Ophir is the very word for wealth, and from the name of the descendants of this son of Joktan, we have our word *magazine*, illustrative of their consequence as bankers and depositaries of treasures. From them Solomon got almug trees for pillars to the temple, brought in the ships of Hiram, himself being of this same Joktanic blood and language.

And with *Job* to complete the list we have here beyond question the most illustrious family of peoples of prehistoric times.

Baldwin, in his *Prehistoric Nations*, says, "It would be unreasonable to deny or doubt that in ages farther back in the past than the beginnings of any old nation mentioned in our

sequent editing of the Book of Job, his friends are said to be from countries called after the

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ancient histories, Arabia was the seat of a great and influential civilization. This fact, so clearly indicated in the remains of antiquity, seems indispensable to a satisfactory solution of many problems that arise in the course of linguistic and archæological inquiry. It is now admitted that they were the first civilizers and builders throughout Western Asia, and they are traced by remains of their language, their architecture, and the influence of their civilization on both shores of the Mediterranean. It is apparent that no other race did so much to develop and spread civilization, that no other people had such an extended and successful system of colonization, that they seem to have monopolized the agencies and activities of commerce by sea and land, and that they were the lordly and ruling race of their time. The Arabians were the great maritime people of the world in ages beyond the reach of tradition. As Phœnicians and Southern Arabians they controlled the seas in later times, and they were still the chief navigators and traders on the Indian Ocean when Vasquez di Gama went to India around the Cape of Good Hope."—Pp. 66, 67.

From Herodotus we learn that the Phœnicians came from the Erythræan Sea, which he explains to be the Persian Gulf, that having crossed over from thence they established themselves on the coast of Syria on the Mediterranean, and that their chief cities were Tyre and Sidon. McCausland says they were once supreme throughout the Mediterranean, and even beyond the pillars of Hercules. Tyre sent forth numerous colonies and founded flourishing commercial communities in various parts of the world. Her merchant princes spread their dominion over Cyprus and Crete and the smaller islands of the Archipelago in their vicinity. They also made settlements in Sardinia, Sicily, and Spain, and their vessels penetrated as far as the islands of Madeira to the west, and to the British Isles and the Baltic on the north. Traces also are found of them in India, Ceylon, and onward across the Pacific to the shores of the New World. Carthage, for a long time the rival of the Roman

names of some of Abraham's descendants. Names which did not exist for thousands of

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Aryans, was the most flourishing and last surviving of the Phœnician colonies. The renowned Hamilcar and Hannibal were members of this family, also Cadmus, who was the first to introduce letters into Greece, and Ninus, the just and wise king of Crete, who according to Thucydides, was the first known founder of a maritime empire.—McCausland's *Builders of Babel*, pp. 53–55.

That the Phœnicians were Shemitic, and not Hamites, is proven by their language, which from the inscriptions they have left is manifestly and incontrovertibly the same for the most part and in every case with what is familiar to the modern student as *Hebrew*. See Gesenius's *Scripturæ Linguæque Phœniciæ Monumenta*, where that distinguished scholar, as Gale and others have also observed, says "Omnino hoc tenendum est, pleraque et pæne omnia cum Hebræis convenire, sive radices spectas, sive verborum et formandorum et flectendorum rationem."

Rawlinson, in his *Essays* on Herodotus, Bunsen, in his *Philosophy of Un. History*, and Wilkins, in his *Phœnicia and Israel*, with every degree of confidence assert and maintain that the Phœnicians were *Shemites*, and hence of the Joktanic lineage. Rawlinson also remarks that these people possessed "a wonderful capacity for affecting the spiritual condition of our species, by projecting into the fermenting mass of human thought new and strange ideas, especially those of the most abstract kind. Shemitic races have influenced far more than any others the history of the world's mental progress, and the principal intellectual revolutions which have taken place are traceable in the main to them."—*Herodotus*, p. 539.

An item of evidence of Melchisedec's connection with this people is found in the name of the Deity given in Gen. 14 : 18, where the God of Melchisedec is called, not *Eloah* or *Elohim*, but *Eliun*, which is the Phœnician designation of God used by Sanchoniathon, the Phœnician sage, from whom sundry fragments have been preserved. See Kenrick's *Phœnicia*, p. 288.

years afterwards are in like manner given to the country about the Garden of Eden. (Gen. 2 : 11–14.)

There is no evidence that the chief river of Palestine bore the name *Jordan—River of Dan*—till long after the time of Moses and Joshua, and yet that subsequent Jewish name is everywhere inserted in the antecedent records. And so Eliphaz might much more intelligibly be said in Moses' time to have been from the country then known as Teman, and Bildad from the country then known as Shuah, though they both lived and occupied those regions hundreds of years before Teman and Shuah were born. There may also have been an earlier Teman and Shuah whose names others long after them in some way inherited. The original name of the territory in general is preserved in the designation of the country of Job himself, which also plainly antedates the Teman and Shuah descended from Abraham. From Stony Arabia to Damascus, along the whole east of Palestine, the country is called *Uz*. The more precise region whence Job came, likely was that portion of Arabia bordering on the east of Edom, south of Trachonitis, and extending indefinitely towards the Euphrates. *Uz* is a Shemitic name, called

Aus in the Arabian antiquities, and denotes the region where Shem himself probably lived and died.* Judging from chapter 8 : 8–10, and 12 : 12, we may readily believe that Job himself saw, heard, and often consulted Shem, and got his sacred wisdom from him. In the providence of God he in a measure at least, and perhaps by special call and ordination, took Shem's place as the principal representative of the patriarchal religion after Shem's death, as Abraham subsequently, whom Melchisedec blessed and consecrated as meant to fill this office after him, till he, of whom Melchisedec was the illustrious type, should come.†

Job and Philitis.

And as Melchisedec and Job were most likely one and the same person, so the same would seem to be the *Philition* of Great Pyramid notoriety. Job was the youngest of a

* "Shem appears in his own annals as one who had left his native [original] land, and in the course of ages migrated west and south from the primitive common seat of the civilized stock of Central Asia, with an unceasing tendency towards Egypt."—Bunsen's *Univ. Hist.*

† This would give us a most remarkable and unbroken succession or line of sacred prophets from the foundation of the world—Adam, Seth, Enoch, Noah, Shem, Job, Abraham and the chosen people, terminating in Jesus Christ and his Church, which abides to the end of this present world.

family in which was the science, faith, and enterprise for such a work, beyond all others then living. Job was an Arabian, and a shepherd prince, just as the Egyptian fragments testify respecting Philitis. Job's account of his own greatness, doings, and successes, depicted with so much beauty in chapter 29, grandly harmonizes with Manetho's story of the strange power of the Hicsos over the Egyptian rulers obtained "without a battle." He held idolatry to be a crime punishable by the authorities (chap. 31 : 26–28), just as Cheops was persuaded while the Great Pyramid was building. He was a true man of God, a public instructor in sacred things, with whom Jehovah communicated, and whom the Spirit of God inspired.* The Almighty speaks to

* Dr. Lee renders chap. 29 : 7, "When I went forth from the gate *to the pulpit* and prepared my seat in the broad place" Herder translates the same,

> "When from my house I went to the assembly,
> And spread my carpet in the place of meeting."

In verses 21–23, there is a further allusion to his addresses to the people, and the reverence and eagerness with which they listened to him.

The account of the convening of "the sons of God," given in the first chapter, implies the existence of assemblies for worship in those times, and the giving forth of instruction on those occasions.

him in chapter 38 as if he were the identical person who had laid the measures of the Great Pyramid, stretched the lines upon it, set its foundations in their sockets, and laid its topstone amid songs of exalted triumph.* Chap. 19 : 23–27 looks like a description of the high intent of the Great Pyramid, and a prayer that it might endure with its glorious freight even to the end of the world. And the more I study the Book of Job in the light of its author's identity with the mysterious Arabian stranger to whom the Egyptians attribute the Great Pyramid, the stronger and

* The spirit of the passage admirably interprets in this sense. The object is to convince Job of his incompetency to judge of and understand God, and the address runs as if the Almighty intended to say to him, "*You* laid the foundations of the great structure in Egypt, but where were you when I laid the foundations of the far greater pyramid of the earth? *You* laid the measures on the pyramid in Egypt, but who laid the measures of the earth, and stretched the line upon it? *You* fastened down in sockets the foundations of the pyramid in Egypt, but whereupon are the foundations of the earth fastened? *You* laid the pyramid's completing capstone amid songs and jubilations, but who laid the capstone of the earth when the celestial morning stars sang together, and all the heavenly sons of God shouted for joy?" The image is unquestionably that of the pyramid, and the appeal is best interpreted and tenfold intensified on the hypothesis that it was the builder of that pyramid who is thus addressed. This would also give adequate reason for the departure from the idea of the earth's nature and position given in another part of the book, to take up the image of a pyramidal edifice in this grand passage.

more satisfying to me becomes the likelihood that here is the mighty prince and preacher of Jehovah from whom we have that monument. All the facts, dates, and circumstances amply accord with the theory that "Melchisedec" was Job, and that the same was the "Philition" of Herodotus.

But whether such identity can be established or not, the effect in this argument is essentially the same. If these three names denote three distinct persons, they all belong to the time of the Great Pyramid's erection and to the same general community or class of people. They were all shepherd princes. They all hated idolatry, worshipped the true God, and fulfilled a sacred mission mostly before Abraham came upon the stage. And closely related to them were others of the same faith and spirit, and scarcely inferior in dignity. Eliphaz, and Bildad, and Zophar, and Elihu, must be counted with them, and of them we may judge from what we read and hear of them from the Book of Job. From all these together we get an impression of the age and communities in which they had their homes, and what sort of men then lived and operated What we find in them we may put

down as characteristic of their period and from it safely reason.

Results.

We thus learn what is indeed of very great moment, to wit, that God then had his priests and worshippers upon earth, and that they were the most princely, learned, and commanding people living. We thus learn that it was God's habit to converse with them, to direct their ways by special revelations, and to inspire them for the utterance and recording of his mind, will, and purposes. We thus learn that they were the family kindred and blood relatives, the same in language and country, with those whence the after world obtained all the original elements of science and civilization. We thus learn that with them was the competency and every qualification, both natural and supernatural, for the erection of just such a monument of science, theology, and prophetic history, as we find in the Great Pyramid. Nay more, we thus learn that it was the subject of their special craving, that their words, wisdom, and immortal hopes should be engraven with pens of iron in imperishable memorials of rock! (Job 19 : 23–27.)

No matter then whether Philitis, Melchisedec and Job were one, or two, or three; such mighty men of Jehovah there were in that far-off age. They believed in one God, and in holy angels, and in a devil, whose subtle depravity had inoculated all natural humanity. They feared sin, and sought forgiveness and salvation through bloody sacrifice. They hoped for a coming Redeemer, and for resurrection through him. They treasured the primeval records, traditions, and revelations from Adam down, even the same from which Moses compiled when he framed his Genesis.*

* From Luke 1 : 69, 70, and Acts 3 : 21, we learn that there were sacred prophets, inspired of God, from the earliest beginnings of human history. Who were they? Adam, Seth, Enoch, Noah, and Shem were most eminent among the primeval worthies, and most blessed and honored of God of all the ancients; these would then be the greatest sacred teachers, and the men most fitted to hand down accounts of the things they saw and had learned of the Lord. The indications also are that they did severally record and transmit what they knew and held as sacred, and that Moses in making up the Book of Genesis incorporated these sacred heirlooms into his records, weaving them into one narrative, condensing, adding to, but carefully preserving the ancient texts which he employed. Hence the name of the art called *Mosaic work*. Nor would it seem impossible, even at this late day, to point out what parts of the holy records have come from each.

I. If we take Genesis 2 : 4, on to the end of the third chapter as the *Book of the Prophet Adam*, it at once assumes a life and vividness which it does not otherwise possess. Its title and contents show that it is a monograph. Its close would seem to

Special communications, teachings and impulses from God were also as common to these people

indicate the time when it was written and its probable author. Certainly no one was so well qualified to write it as Adam himself. And if he wrote anything, it must above all have been this. Assuming also that he, and not Moses, was the original narrator, we are greatly helped with regard to the allusions to the topography of Eden, which doubtless was much changed, at least in the apprehensions with which men looked upon the geography of the earth in the time of Moses, from what it was in the time of Adam. Two thousand years make a wonderful difference in the statements of a gazetteer, even with regard to the same localities. The account of the temptation and fall also becomes more intelligible and interesting in its simplicity as Adam's own statement, than as that of so remote a historian as Moses. The name for the Deity (*Jehovah Elohim*), *Jehovah God*, is also peculiar to this one section of the divine word.

II. Genesis 6: 1–26 is again a distinct monograph, the close seeming to indicate the author, who speaks of the Deity always under the name *Jehovah*. If we have anything from Seth, this is the section above all others that would fall to him. It is perhaps only the conclusion of an ampler record from that holy patriarch.

III. From Enoch we certainly have at least a fragment which is preserved in the Epistle of Jude, beginning at verse 14. He uses the name of Deity the same as Seth.

IV. From Noah we would seem to have several books, the first including Gen. 5 : 1–32. Its title shows its monographic character, and its close indicates when and by whom it was written. It denotes the Deity exclusively by the one name (*Elohim*) *God*.

V. A second Book of Noah would seem to be Gen. 4 : 9–22; 7 : 7–24; 8 : 1–19; 9 : 1–27. None was so competent to write this account as he, and the occurrences are so wonderful that it could hardly be otherwise than that he would, as a preacher of righteousness, have solemnly recorded this momentous account Its end is indicated by a change in the name denoting the

as to Abraham after them. (See Job 4 : 12, 13, 6 : 10; 23 : 12; 33 : 14–16; 38 : 1; 42 : 5–7.)

Deity in what follows. It also adds greatly to the life character of the narrative to take it as from the hand of him who was the most deeply concerned in the matter.

VI. There is probably a third Book of Noah, in the form of an apocalypse of the creation work, given in Gen. 1 : 1–31; 2 : 1–3. The nature of this revelation was quite apart from any personal experience or recollection, and could as well have been given to one prophet as another. The form of designating the Deity (*Elohim*) is that in the sections which appear to have come from Noah, and the style corresponds to those sections as to no other portions of the Bible. It is a complete monograph in itself, and can be best conceived by referring it to the prophet Noah.

VII. Genesis 4 : 1–4, 6–8; 7 : 1–6; 8 : 20–22; 9 : 28, 29; 11 : 1–9, shows quite a different style from either of the other sections. It does not appear as a continuation of the Noachian narrative, but rather as fragments of an independent account, from which Moses has interwoven parts to give a greater fulness to the record in general. It designates the Deity (*Jehovah*) the same as Seth and Enoch, and not as either Adam or Noah. The author evidently lived after Noah, though personally familiar with the affairs attending and following the deluge. Therefore, it is most probable that we have these fragments from the patriarch Shem.

VIII. So, Genesis 10 : 1–32 and Genesis 11 : 10–26, are plainly monographs, and as plainly from distinct sources. Had Moses been the original author of both, the one would have been made to correspond with the other, and we would have had one symmetrical statement of the genealogy, continuous and digested. The first bears internal evidence, amounting almost to certainty, that it was composed by Eber from his own personal knowledge, and while living with his younger son Joktan. That it was written before Sodom was destroyed is proven by verse 19. Had it been written by Moses, he would not have said, "*as thou goest unto Sodom and Gomorrah,*

They had the moral and intellectual qualifications to furnish the sublimest section of the holy Scriptures. There was no superior enlightenment, no higher civilization, no purer faith, no truer science, no more intimate famil-

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and Admah and Zeboim," but "*as thou goest unto the Salt Sea*," as in Deut. 3:17 and elsewhere. The genealogy in the eleventh chapter is also more orderly in style, and was most likely made up by Terah or Abraham, from information handed down from father to son in the family from which he was himself descended.

It would be presumption to speak confidently on such a subject, or to claim that this is beyond mistake the authorship of these several sections of the sacred word. The inspiration of Moses is warrant enough for all of them. But Moses nowhere claims to have been the original author of these records, neither does the Scripture assert that they were written by him. On the contrary, it tells us of a succession of inspired men from Adam's time, from whom we have nothing, except as above indicated. And as the nearer the historian lived to the events which he relates, the more satisfactory his account; if there is reason to believe that these documents were written by the parties personally concerned, they become the more impressive, interesting, and easy to be understood.

It is at least interesting to take the Bible and read the several portions as above assigned to Adam, Seth, Enoch, Noah, Shem, etc., in order to see what life and spirit these records take on, when viewed in a way which is at once so probable and so fully in accord with other statements of the Scriptures.

From the texts in Luke and Acts it is clear that the Gospel is as old as the race, and that there never was a time when it was unknown and unsounded. It is traceable in the constellations of the heavens, as represented of old; it is reflected in the traditions and mythologies of all ancient peoples, and in every age there were holy prophets who treasured the divine oracles, and prophesied and taught concerning the coming and achievements of Jesus Christ, and "the restitution of all things."

iarity with the works and purposes of God, than they possessed. And a princely member of their mysterious and loving brotherhood it was who dwelt in Egypt while the Great Pyramid was building. Having obtained peaceable possession of the king's heart, he induced him to shut the temples, punish the priests, cast out the gods, and lend his royal co-operation for the building of a pillar to Jehovah of hosts, which should last to the end of time, and which men should open and read in this last evil age, and know that it is from Him who is about to judge the world for its apostasies.

Thus then, by a chain of traditions, facts, and Bible testimonies, we connect the origin of the Great Pyramid with a mighty prehistoric people, wholly separate from Egypt and its abominations,—a people among whom inspiration, as true and high as that of Moses, wrought, and from whom we have not only the noblest of the sacred books, but likewise the noblest edifice on earth, equally fraught with holy intelligence, divine truth, and inspired prophecy.

What have we then in this unrivalled pillar, but A MIRACLE IN STONE—a petrifaction of wisdom and truth, revealed of God, preserved

among his people from the foundation of the world, and thus memorialized by impulse and aid from Him, that it might outlive the apostasies of man, and stand as a witness to the Lord Almighty when he cometh to judge the world, and to fulfil his promise of "the restitution of all things."

Men may combat and scorn a conclusion so sublime. They may utterly reject it, as they also rejected Christ, and still reject his salvation. But it involves nothing impossible—nothing improbable—nothing but what we might reasonably expect in view of what God did in ancient times, and promised to the fathers. It is agreeable to every item of history of which we can avail ourselves. It conforms to the remarkable traditions on the subject, which cannot otherwise be accounted for. Passages and allusions in both Testaments imply, if they do not positively declare, that it is a thing of God. And the great monument itself gives palpable demonstration of what cannot be rationally explained on any other hypothesis.

Primeval Man.

Materialistic and skeptical science appears disposed to settle upon the belief that man is a being who has had to educate himself up to

what he is, from a troglodyte, if not from something much lower. Of course this goes against the Scriptures, and sets aside as fable and mythic superstition all the most essential substance of the Scriptures. But what care such scientists for that? Such consequences to a theory they take rather as a recommendation. But no such philosophizing can stand before the Great Pyramid. If the primeval man was nothing but a gorilla or a troglodyte, how, in those far prehistoric times, could the builders of this mighty structure have known what our profoundest *savants*, after a score of centuries of observation and experiment, have been able to find out only imperfectly? How could they know even to make and handle the tools, machines, and expedients indispensable to the construction of an edifice so enormous in dimensions, so massive in its materials, so exalted in its height, and so perfect in its workmanship, that to this day it is without a rival on earth? How could they know the spherity, rotation, diameter, density, latitudes, poles, land distribution, and temperature of the earth, or its astronomic relations? How could they solve the problem of the squaring of the circle, calculate the π proportion, or determine the four cardinal points? How could

they frame charts of history and dispensations, true to fact in every particular for the space of four thousand years after their time, and down even to the final consummations? How could they know when the Mosaic economy would start, how long continue, and in what eventuate? How could they know when Christianity would be introduced, by what great facts and features it would be marked, and what would be the characteristics, career, and end of the Church of Christ? How could they know of the grand precessional cycle, the length of its duration, the number of days in the true year, the mean distance of the sun from the earth, and the exact positions of the stars at the time the Great Pyramid was built? How could they devise a standard and system of measures and weights, so evenly fitted to each other, so beneficently conformed to the common wants of man, and so perfectly harmonized with all the facts of nature? And how could they know to put all these things on record in one single piece of masonry, without one verbal or pictorial inscription, yet proof against all the ravages and changes of time, and capable of being read and understood down to the very end of the world?

Yet, THESE THINGS THEY DID KNOW! Here

they are in solid stone, displayed to all eyes, and challenging the scrutiny of all the *savants* of the earth. Men may sneer, but they cannot laugh down this mighty structure, nor scoff out of it the angles, proportions, measures, nature references, and sacred correspondences which its makers gave it. Here they are in all their speaking significance, stubborn and invincible beyond all power to suppress them. Nothing now can blot out this record, and on it is written the true Scriptural dignity of primeval man, fashioned in the image of his Maker, furnished of God with everything requisite to his highest life on earth, and illumined and impelled of heaven to make this memorial of his sacred possessions, ere they should be finally lost amid the ever-increasing deterioration. It is a record whose antiquity none can dispute, whose authenticity none could corrupt, and whose readings none can construe without the admission of a Divine intervention!

And then what? Why *then inspiration is a demonstrated reality,—then miracle is a tangible fact,—then the foundations of infidelity are dissolved,—then the Scriptures are true,*—AND THEN OUR CHRISTIAN FAITH AND HOPES ARE SURE, AND CANNOT DISAPPOINT US!

Wondrous Providence of a wondrous God, to have planted in our world such a memorial as this,—

> Building in stone a real revelation,
> Which in Time's fulness has at last been read!

Use of the Pyramid respecting Faith.

It is not a substitute for our glorious Bible that we find in this marvellous pillar, nor a thing to be put on equality with the Scriptures, as though the written word were in any manner deficient. We throw back the imputation that we would propound a new religion with a new oracle. Our vaulting scientists have quite monopolized that business. The world resounds with the pratings of their varied sects and schools, agreeing in nothing but in negations of the supernatural. We are content with what our holy books record. But when a sacrilegious rationalism would emasculate them, and an Epicurean philosophy would trample them into the slough, we rejoice and thank God that before he gave these books he caused this mighty pillar to be stationed in the very path of vaunting science, that his assailed, abused, and oft-bewildered children in the extremity of the ages might

be able to appeal to it exultantly for monumental attestation of their faith, and, amid the wrinkles and infirmities of failing Time, still have to show an unfaded memorial of its glorious youth.

GLORY BE TO THE FATHER, AND TO THE SON, AND TO THE HOLY GHOST; AS IT WAS IN THE BEGINNING, IS NOW, AND EVER SHALL BE, WORLD WITHOUT END. AMEN.

Lecture Fourth.

SUPPLEMENTAL OBSERVATIONS.

THE rapidity with which entire editions of my former Lectures on the Great Pyramid have been exhausted, indicates that the subject is deemed meritorious, and that the public mind, in some good degree, is disposed to consider the novel but daily strengthening theory of the divine source and sacred message of that marvellous pillar. It would, therefore, seem to be due that another Lecture should now be added, with a view to some further discussion of sundry points touching the great monumental wonder, particularly in respect of what has transpired on the subject since the preceding Lectures were published. Hence this Fourth Lecture, which I propose to devote to a series of observations of a somewhat miscellaneous character, supplementary to those which have now been before the public since September, 1877.

A Few Testimonies.

It is with gratitude that I refer to the numerous testimonies, publicly and privately given, to the fitness and worth of the presentations heretofore made. It may savor of personal vanity to rehearse them here, but it is due to the subject that some of them should be recited. The theory to which these efforts have been devoted is yet so new, the number of those disposed to make light of it is so great, the prejudices against it are so strong, the desire of many to know what others think is so reasonable, and the implications are so momentous, that no overweening modesty should keep back what may be of value to inquirers, or aid in promoting an appreciative examination of the thrilling proposition. Certainly, when the way to a fair hearing of the truth is to be cleared, all prudery should stand aside.

It is, of course, of the first importance, in asking men to form a judgment on such a question as that which I have endeavored to propound, to know whether the facts are properly stated and reliable. So long as there is doubt on that point there can be no real earnestness in the matter. It is only when the

facts are truly made out, that the obligation is upon the human mind to make a logical and true disposition of them. As to the correctness and faithfulness of the presentations made in my former Lectures on this subject, besides the references given in place, and the means of verification more or less within the reach of all, the following may be taken as of some worth.

William B. Whiting, Commodore in the United States Navy, writing from 54 Prospect Avenue, Milwaukee, Wis., February 2d, 1878, in connection with other things, to which I will subsequently refer, says:

> I have read your book, *A Miracle in Stone*, with profound attention, as well as interest. I am not able to criticize or test all the facts asserted therein; but, as far as I am able, *I know most of them to be correct.*

The *Episcopal Register*, Philadelphia, October 13th, 1877, bears this testimony:

> We have ourselves given some attention to the subject, and are prepared to accept certain of the statements contained in the volume before us—*A Miracle in Stone.* The Pyramid is certainly a great mystery, and perhaps it was left for this age to solve it. The author, in the new work under notice, relates the general facts and scientific features.

Prof. Piazzi Smyth, Astronomer Royal for Scotland, author of a number of the most original and profound works on the Great Pyra-

mid, and of all men living perhaps the best qualified to judge in the case, writing from 15 Royal Terrace, Edinburgh, October 26th, 1877, among other things says:

I beg to thank you for your book, *A Miracle in Stone.* I have read now every word of it, and find that, whereas it shows you to have got a more thorough and practical knowledge of the scientific claims of the Great Pyramid to be attended to by the intellectual of the present age than nine hundred and ninety-nine out of a thousand who talk about it, it shows that unexceptionable introduction to and hold of the subject to have been blessed to you by a more vivid, practical, powerful sense of the religious message of the Great Pyramid to the present and coming age of the world than anything I have ever seen manifested yet in any Pyramid writing hitherto produced on either side of the Atlantic.

Part of my reading yesterday was in a railway carriage, in foggy wet weather, but the happiness of your phrases, the justness of your conclusions, the flow of your language, but far above all that skill, the inexpressibly high value which you place on any utterance of God, whether in word or stone, as compared with the teachings of the schools, was one of the most enthusiastic episodes that I have passed through for a long time; and I have noted several points, such as your explanation—most spiritual as well as symbolical—of the fifty-six ramp-holes in the Grand Gallery, as apparently quite new in the Pyramid theory, but deserving of forming a part of it henceforward forever

As testimonies to the force of the facts and arguments contained in the preceding Lectures, I take the liberty of presenting also a few extracts from notices and reviews of them which have been given to the public.

From *The Visitor*, October 19th, 1877.

The distinguished author regards the Great Pyramid as having been built by divine inspiration in the far ages of the past; and if its external form, lines and angles, as well as the internal arrangements are correctly described,—of which there seems to be no reason to doubt,—then the conclusions at which the writer arrives appear to be logical and nearly irresistible, though not amounting to demonstration, as to the wonderful knowledge of the builders in astromony and geometry; and, what is of greatest interest, goes far towards establishing the authenticity of the Holy Scriptures, not one book of which was written until many years subsequent to its erection, thus placing them beyond the cavils of modern skepticism.

The book is well suited to this age of empiric philosophy, and of science falsely so called, and is calculated to do much good. The views entertained by the author as to the identity of Melchisedec and Job may possibly be regarded as somewhat fanciful, and at variance with the opinions of commentators generally, yet nevertheless have an air of much plausibility

From *The Churchman*, January 19th, 1878.

We are glad to see this publication. Probably most readers will question the soundness of some of the author's inductions; but, setting aside everything of a doubtful character, there is enough left to startle one who comes to the subject for the first time.

The same argument from design which leads us to believe that the world had a personal Creator, warrants the belief that the Great Pyramid was built to serve as a monument in stone, not only of the most important mathematical and astronomical truths, but also of the deeper mysteries of God's Revelation. We cannot follow the author through the various chapters in which he traces the great Great Pyramid's disclosures, but there is ample ground for something more than conjecture in the things here related. The harmony which is pointed out as existing between them and, on the one hand, the truths of science, and, on the other, those of Holy Scripture, cannot have been altogether the result of chance.

The work is more fascinating than any romance. Yet it records possibly only the beginning of yet more wonderful developments to follow in the future. What was once only an object of curiosity for travellers has become the subject of most intense historical, scientific, and religious interest.

From *The Congregationalist.*

It seems that the Great Pyramid, on being subjected to a rigid scientific examination, without and within, yields a greater number and variety of facts, measurements, and other qualities, which, to say the least, are singularly coincidental with other facts, measures, and qualities, relating to religious history and other departments of knowledge, in a way to suggest, if it does not prove, how the structure may or must have been planned by some mind conversant with things to come; so leading to the conclusion that the architect of the Great Pyramid was God himself, who inspired its details, as he did those of the ark, the tabernacle, and the temple, and sealed up in its dumb stones, and strange passages and chambers, an attestation of the other revelation he was to give to the world in the written book.

The whole story of this new and somewhat startling theory has been well told by Dr. S., who has written with the English authorities before him. To those fond of curious research and labored calculations, it presents an exceedingly interesting subject. Nor can we refrain from saying that, after all possible pains have been taken to avoid an excess of fanciful interpretation, there remains a mass of incontestable coincidences which is certainly very hard to explain on any theory of the edifice being simply a tomb. It is the grand symbol-work for the world.

From *The Episcopal Recorder*, January 2d, 1878.

We have, in this book, several lectures designed to explain, corroborate, and establish certain main positions; and those positions are startling, and challenge the most careful and earnest study. The lecturer seems to have read everything that has been written about the Great Pyramid; to have

weighed every conjecture, opinion, and argument; to have consulted history and prophecy; to have corrected science, and to have discovered an epitome of all natural, ethnic, and spiritual knowledge. We hardly know which is the greater, the Pyramid or the book. To quote any striking passage as a specimen of the work would require a transcription of the whole, for it is all interesting, and one of the most readable and instructive books of the times. We feel confident that the biblical student who reads it will consult it frequently, and that materials enough will be found in its pages to furnish adequately any number of prize essays, lectures, and debates. If the facts presented are established, then the truth is confirmed that the builder of the Great Pyramid was the greatest and most fully inspired man of the human race, and his work in stone as truly a work of God as the pen-and-ink works of Moses and Isaiah.

From *The Lancaster Daily*, November 28th, 1877.

This view of the Great Pyramid is being adopted by a widening circle of Christian believers, until even a skeptic scientist has dignified it as "the religion of the Pyramid!" It presents more intrinsic evidences of verity than things which have for generations commanded the devotion and aroused the enthusiasm of religious credulity, and it may yet come to be an accepted fact in the divine economy.

These expressions and others at hand, most of them from sources of the highest worth for intelligence and candor, sufficiently indicate that, in dealing with this subject, we are handling, not only a legitimate and worthy theme, but one of serious importance, which challenges the earnest attention of philosophers and divines, and which must be taken into account in order fully to construe the history of man or the dispensations of God.

Adverse Criticisms.

But it is not hence to be inferred that no adverse judgments have been given upon these presentations. In such a case it would argue that misapprehensions, perversity, prejudice, ill-affections, and foregone conclusions had ceased to influence the human mind, if no opposing criticisms had been called forth.

When Prof. Smyth propounded to the Royal Society of Edinburgh the earth-commensurated standard and system of linear measure, so marvellously and fully symbolized in the Great Pyramid, one of the most distinguished members of that learned association felt himself moved to put a summary extinguisher upon the whole thing. To accomplish this he consented to lay aside all the seriousness and dignity of genuine science, and betook himself to the expedient of a ridiculous trick. Before the time at which he proposed to deliver his lecture of reply he selected *a hat*, the brim of which measured exactly one-half the length of the pyramid and sacred cubit, had it placed upon his desk by an assistant, and, when the proper moment arrived, proceeded with great gravity and unction to enact the farce of measuring it before the audience. Having with the

utmost precision taken its dimensions, he triumphantly announced it *just the twenty millionth part of the earth's polar axis*, and hence arguing all the high and inspired science in the maker of that hat, which is claimed for the builders of the Great Pyramid! Of course the learned baronet brought down the house, but it was the turning of the halls of science into the stage of the jesting mountebank, in order to heap scorn and insult upon the intelligence of (in any view of the case) the greatest monumental builders that ever lived. And after the same style have some of my critics seen fit to proceed. Thus a popular journal, specially devoted to the religious edification of the young, as a specimen, perhaps, of its way of feeding Christ's lambs, prints the following:

Many of the conclusions would be paralleled by assumption that all the possible combinations of the engraver's geometric lathe were miracuously revealed to its inventor; all the mathematics of the sliding rule to its contriver, or the whole science of trigonometry to the man who first conceived a plane triangle. Given a true pyramid, and a multitude of subtle theorems are immediately inherent, which are indefinitely increased as the pyramid takes one or another limitation in shape; but it does not follow that all the theorems were miraculously revealed to the architect. If so, what navigators and astronomers are the country boys who make their own spherical base balls! And, if we make the unit of measurement only small enough,

how many harmonies of the heaven and spheres will these balls typify!

So another journal, one which claims to minister to the higher spirituality in religion, considers the whole question adequately disposed of by this illustration:

Take a hole in the ground, which was excavated and stoned round you know not when, then *assume* that this hole had an astronomical purpose, and proceed to find a time when some star would have shone straight into the hole! That is the logic of the miracle-in-stone theory.

And yet another religious paper, which loudly assumes to itself the leadership of advanced modern thought, says:

The symbolism which the author finds in the construction of the great monument, could be found by the same process in the new Chicago custom-house, or any other building.

It is questionable whether such writers comprehend their own language, much less the matter which they have undertaken so pertly to dispose of. For the credit of human intelligence I am glad to say that, out of more than one hundred published notices, these three have the eminent distinction to themselves of gravely considering the pyramid argument sanely met by conceits so shallow. As Sir J. Y. Simpson's hat trick reacted to his own dis-

credit as a representative of science,* whilst the imperishable facts touching the Great Pyramid went on making converts to the only theory that can account for them; so it will ever be. People are mistaken and do great injustice to themselves when they think to sneer down the sublime intellectuality of this hoary monument of the primeval world; and these comparisons are nothing but sneers of a very low order. Just illustrations they are not. In neither of them is there the slightest parallel to the case we present. "These spherical balls" (?), holes in the ground, or other named constructions, must first be accurately measured, as the Pyramid has been, and proven to contain the *data* assumed for them, or what is equivalent to the actual and indisputable facts and formulas deduced from the Pyramid, before the sort of conclusion insinuated can with any soberness be entertained.

* Among the published notices of Sir James Y. Simpson's efforts against the Pyramid presentations, we find the following expressions:

"Sir James does not seem to have proved a single objection to the printed theory, and his whole attack shows anything but a scientific spirit. It is a pity that he should waste his time in trying to disprove a subject which is not at all in his sphere, and about which he shows himself so ill-informed, having neither had time nor opportunity thoroughly to examine the grounds and foundation of the Pyramid and its teachings."

I do not undertake argument with ridicule; but, when it is put forth in the guise of logic, it is due that some notice should be taken of it. And, from the temper and spirit of these writers, it may be safely concluded that, when they have once had it demonstrated to them that the objects they name contain but a hundredth part of the coincidences with the great facts of science and sacred theology shown to be embodied in the Great Pyramid, every man of them will be loud in claiming and proclaiming the undoubted supernatural intelligence of the boys who made the "spherical balls," the digger who shaped that hole in the ground, and the architect who designed the form and measures of Chicago's new custom-house, albeit these things came into being under all the light and intelligence of this nineteenth century, whilst the Great Pyramid was made and finished four thousand years ago, at a time when the knowing ones of our day assert that men had no implements but chipped flints, and no dwelling-places but dens and caves of the earth.*

* One of these journals, however, gives a further specimen of its wit in disposing of this case, by propounding a measure-test of the brain-calibre of the Lecturer. The delectable morsel is in these words:

"The size of the author's intellect may be inferred from his

The Verdict of "Not Proven."

Several of the reviews, which have otherwise spoken respectfully of these Lectures,

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horror of the French metric system, because its inventors were atheists! We suppose that he carefully investigates the theological soundness of his baker and milkman."

If this writer had given us sound reasons why we should not have regard to the theological soundness of all people with whom we have to do, we would possess at least one item of wisdom from him. And if his mark and evidence of intellectual greatness is, to be on good terms with the theology and religion of the inventors of the French metre, it is no mortification to us to fall below his standard, inasmuch as the Word of God has some rather uncomplimentary expressions touching the wisdom of people with such affinities. Psalms 14 or 53 : 1.

The courtly editor would have left us room to assign him a less limited degree of candor and fidelity to truth, had he stated the real points we made against the French Metrology (pp. 58-60), instead of citing a mere incidental fact in the case, which, however, as we think, ought to be as little recommendatory to him as to us.

The real objections to the French metric system, which he admits to have originated in atheism (in which we believe the baking of bread and the serving of milk did not originate), may be summed up in the following statements, which we repeat for the common benefit:

I. It is unscientific, notwithstanding its great pretensions to science.

(1.) It is founded on *a curved line* instead of *a straight one*—follows a circumference for a measure of length instead of an axis or diameter.

(2.) It is based on the particular meridian of Paris, no more fitting than any other meridian, and the measurement of which differs from that of other meridians just as much entitled to be taken for such a purpose, for instance the Russian, and the British Indian, which have been measured as well as that of Paris.

have summed up their conclusions concerning them in the words "*not proven.*" What, and

(3.) It is inaccurate and untrue, as now admitted, by one too little in every 5300 parts.

(4.) It is utterly meaningless and unharmonious with nature, as well in its unit as in its fractions and multiplications.

II. IT IS INHERENTLY INCONVENIENT.

(1.) It fits to nothing, demanding a thorough reconstruction of ideas on an arbitrary fancy.

(2.) It is bi-lingual in its terminology, taking its names from languages incapable of ready understanding, except to classical scholars, who have the least use for it.

(3.) Its terms are cumbrous, long, jaw-breaking, and hard to be learned and remembered.

(4.) Its unit of length is unstridable and incapable of any natural measurement.

III. IT IS OFFENSIVE IN ITS RELIGIOUS AND THEOLOGICAL RELATIONS, except to infidels and unbelievers.

(1.) It is the furthest from the scriptural and sacred system of weights and measures of all systems on earth.

(2.) It is the national characteristic of the only nationality that ever officially denied the divine existence.

(3.) It affiliates, at least in some degree, with the buying and selling "mark of the Beast," which is connected with very serious divine judgments. See Rev. 13 : 16 ; 20 : 4.

IV. WE HAVE A BETTER SYSTEM ALREADY—a system more truly and significantly founded in nature, which, with certain slight and easy corrections, from the memorializations of the Great Pyramid—that great monument of the primeval wisdom—would constitute a system of metrology the most ancient, the most expressive, and the most accurate, beneficent, and easy, that is at all known among men.

V. THE ADOPTION OF THE FRENCH SYSTEM BY US WOULD BE PRACTICALLY AND PROFOUNDLY OPPRESSIVE. It would cause a century or more of confusion and trouble, and disable all our present records, and much of our literature also, to the

how much, they severally include in this verdict, does not appear. If the meaning is, as seems to be intimated in one or two instances, that the question of identity between Job-ab and Job, or between Job and Melchisedec, or between Job, Melchisedec, and *Philitis*, is not convincingly made out, it was gratuitous to say so, as I had not affirmed such a proposition as certainly true, or as a necessary part of my argument. Remarkable coincidences and possibilities were somewhat discussed touching this point, but with the distinct suggestion that nothing is rested on it except to prove that men of these sublime qualities and relations did live in the period of the Great Pyramid's building, and that hence it was not impossible, but is quite probable, that the same was built under the direction of "the sons of God," and,

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after generations, requiring translation into other terms to be understood. Even the necessary little change from old style to new style in the calendar still embarrasses betimes, though made so long ago. This change of metres would necessarily touch all our charts, surveys, land records, dispensatories, prescription books, and formulas of arts and manufactories, entailing upon the people expenditures, losses, and inconveniences beyond estimate for generations together, for which nothing but this cumbrous atheistic fancy is given in return. The Anglo-Saxon world should hesitate long before plunging itself into such a turbulent sea of revolution and folly.

If this evidences a deficiency of brain-size we are willing that those who think so should make the most of it.

if so, under the tuition and guidance of God himself.*

* It is to me a matter of regret, that writers on the Pyramid are putting it forth as a doctrine, not only that Philitis certainly is the same as Melchisedec, which is highly probable, but that Melchisedec was *not a man*, but "he who talked with Moses in the mount, who walked with Shadrach, Mesheck, and Abednego in Nebuchadnezzar's furnace of fire, viz., *the Son of God*," merely in the appearance of a man. This introduces a matter quite unnecessary to the Pyramid theory, and one so thoroughly questionable and extravagant in itself, that it can work only disadvantage to the argument. It is plausibly argued by some that Melchisedec, who is so mysteriously and yet so honorably mentioned in the Bible, was "the Son of God in human form," and his meeting, feeding, and blessing of Abraham, one of the numerous Theophanies referred to in the Scriptures. But that has never yet been proven. If Melchisedec was a Theophany, it bears none of the features of the undisputed Theophanies. Melchisedec is scripturally affirmed to be "*like unto* the Son of God," which would very strongly imply that he was *not* the Son of God himself, but only *a type* of him, and hence *a man*, as the common English version, whether with warrant or not, affirms that he was. It is hard to understand that "this man" should carry bread and wine to Abraham, and, as an earthly priest-king, take from the patriarch a tenth part of the earthly spoils of war, and consent thus "to be ministered unto," if he was *the Son of God*, and not a human being. There is no corresponding case in all the recorded Theophanies, which are claimed as "numerous." And if it is to be accepted that Melchisedec was "the Son of God in human form," it necessarily weakens, if it does not totally destroy the supposition that Melchisedec was Philitis, the shepherd prince, to whom the building of the Pyramid is ascribed. For then we will have on hand a proposition so extraordinary and difficult to maintain, as to be quite outside of all probability. (1.) The Theophanies were all of very brief continuance; but Melchisedec, if he was Philitis, must have continued and ministered on earth for

So again, if the meaning is, that the various doctrines entering into a sound theology, as

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at least forty years. The Pyramid and its preliminary works alone occupied thirty years, during all of which time Philition, or Philitis, kept his flocks about the place in the ordinary habit and condition of a shepherd king. To these thirty years we must add the time required for the gathering of his company and the national arrangements in Egypt in order to begin the work, together with the time consumed in the migration to Palestine, the building of Jerusalem, and what interval there may have been from the settlement in Jerusalem to the meeting of Abraham. This would give us a Theophany for the building of a memorial in stone, at least seven times as long as Christ's earthly ministry for the salvation of the world, which is hardly credible without the strongest sort of evidence. (2.) The ordinary divine method, in all analogous cases, is the selection, equipment, and commissioning of real *men* as the agents and ministers of God. God did not assume a form, and appear as an earthly administrator, in giving us *the Book* of Revelation. He did not write it himself, but chose and inspired *men* for the purpose. Why not the same in *the stone record?* It was through the mediate ministry of Moses and Aaron that God wrought Israel's deliverance, and gave them their institutions. The work of salvation itself was not wrought but through the mediateness of a true human nature. The planting of the Church and the ministration of the Gospel and its benefits was and is through the agency of *men*. And however divine or great the work, it is always through some human instrumentality, employed and endowed for the purpose. Why, then, without positive proofs to that effect, should we risk an important cause by assuming and teaching that it was different in the case of the Pyramid? (3.) It was just as easy, and far more in accord with analogy, to make the Great Pyramid everything which it is now found or claimed to be, by an ordinary operation, like that which led and influenced the prophets in their work, as for the Son of God to assume "the form of man," and to live and operate as a shepherd-king, architect and priest for

named in the Lectures, are "not proven" by the analogies and indications described, I fully agree with the statement. These doctrines repose for their truth on quite another basis, and are proven from quite another source. The point was not to show their truth or credibility, but that accepting them as the substance of the Scripture Revelation, a clear and striking correspondence to them may be found in the Great Pyramid, just as we might naturally expect if it is what I take it to be. The numerous instances which I pointed out, and which I know not how men can honorably get rid of, are not given as proofs of these doctrines; but, the fact that they exist, and may be so vividly traced in the great monument, is brought out first in the interest of exegetical science, and second as furnishing strong reason to suspect that *the Book* which teaches these doctrines, and *the Pyramid* which so wonderfully harmonizes with them though built so long in advance, have both come from one and the same source.

Supposing God to have caused such a memorialization of any portion of his works and

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the space of some three dozen years on earth. (4.) If such a thing had been, it is unaccountable that we should have no more record of it than appears in the brief references to Melchisedec

purposes, as claimed for the Great Pyramid, it is reasonable to infer that, as in the Bible so here, He would have respect to the whole story of Revelation, which is just as easy to Him as any part of it. If the whole story were not traceable, at least in its main facts and features, the presumption would be against the idea of His having been concerned in it. And so, on the other hand, when it is shown that the whole story is so truly and fully indicated in the Pyramid's symbolisms, the presumption fairly is that the Pyramid is from the same intelligence from which we have the Scriptures.

But the meaning of these reviews rather seems to be, that the whole presentation, as respects the new theory concerning the Great Pyramid, is "not proven." This presents a serious judgment for us, as no one wishes to entertain for truth what has no reasonable foundation. The question then comes up, What is sufficient proof in a case like this? No Christian will say that the thing is *impossible;* and considering the circumstances, and how God aided and directed in other constructions of human handiwork, no one can reasonably say that it is *improbable.* It therefore depends very much upon the particular moral

condition of the mind that undertakes to decide upon the matter, as to what is adequate proof and what is not. To the Atheist, the evidences of the existence of a personal, almighty, and intelligent God, are deemed inadequate and unconvincing. To the Deist, the evidences of the inspiration of the Holy Scriptures are rejected as inadequate. To the Arians, the evidences of the co-equal and co-eternal three-oneness of the Deity are set aside as inadequate. To the Jew, the evidences of the Messiahship of Jesus of Nazareth, and of the plan of salvation through him, are scorned as utterly inadequate. To a Socinian, the evidences of the doctrine of atonement by the blood of Christ,—to the Universalist, the evidences of future and eternal punishment,—and to many, the evidences of a life to come and the immortality of the soul,—are all deemed inadequate. On all these and other points, great bodies of men, who make every claim to intelligence, candor, and sobriety, write down as their ultimate conclusion, "*not proven.*" And yet, every true and orthodox Christian holds each and every one of these things amply made out, with a clearness and certainty on which he rests with unshaken confidence for this world and the next. The answer he

makes to all classes of these unbelievers is, that they do not start with right principles, that they are not open to the force of truth and fair argument, that they decide on imperfect and unreasonable grounds, that they wish to believe as they do, and hence are not willing to take in anything else.

It is a saddening truth, but still a truth, that the source of the skepticism of the unbelieving, however honest they may seem, is not in the inadequacy of the evidence on which to build a true faith, but in some traditional prejudice, or personal perverseness, or unfaithfulness of examination, or unreasonable standard of proof, or unconquerable averseness to the truth, or unwarrantable pride of position or estate, that stops the ears and beclouds the judgment. The everlasting challenge of the Saviour, on which he stakes the whole credibility of the Gospel, is, "If any man will do the will of the Father, he shall know of the doctrine, whether it be of God." (John 7 : 17.) So that we are fully warranted, by the unmistakable word of the great Author of salvation, in saying, that the true and only reason why people cannot find the convincing evidences of all that enters into the make-up of the proper Christian religion is, that they are morally un-

willing to test it by those methods of proof on which it proposes to demonstrate its claims. And if such are the causes that lead so many to regard the evidences of our holy religion, in whole or in part, inadequate, it is not to be wondered that many, from corresponding causes, should withhold belief in the case before us. The skepticism of unbelievers is not held good by Christians as against the divine authority of Christianity, or any of its doctrines; and as the verdict of "not proven" does not adequately settle the question in that case, so neither does it adequately settle it in this.

Were it shown us wherein the argument for the supernatural origin of the Great Pyramid fails in method or degree from that on which we repose our common faith as Christians, this verdict of "not proven" could be more intelligently considered. But no one yet has seriously attempted to point out any such defect. On the contrary, the editor of *The Churchman*, viewing the matter with the keen scrutiny of a broad and penetrating consideration, and with the manly dignity of one who feels the far-reaching character of the problem and of the manner of dealing with it, gives it out as his conviction, which at the same time comes as a note of solemn warning to all believers,

that "*the same argument from design which leads us to believe that the world had a personal Creator, warrants the belief that the Great Pyramid was built to serve as a monument in stone, not only of the most important mathematical and astronomical truths, but also of the deeper mysteries of God's Revelation.*" In so far then as this judgment is correct, the dissenter has his only logical outcome in Atheism.

Something is Proven.

But this verdict of "not proven," which a few have seen fit to return as the only answer needing to be made to the presentations respecting the Great Pyramid, not only fails on the one hand to specify what it holds to be "not proven," but it assumes on the other that nothing is proven of any worth to science or faith, or requiring to be seriously considered. It is thus either mere blind assertion or a very unworthy begging of the question. *Some things have been proved* as fully and as surely as anything can be. They are also very important things, bearing on all the questions respecting humanity and revelation, and involving momentous implications for philosophy, history, and religion. And whether they necessitate

the precise conclusion that the Great Pyramid was built under the direction of some inspired man of God or not, the facts remain clear and unalterable, and nothing is true or sound in human thinking which cannot be construed with them. Investigators may, betimes, have been a little too quick and extreme in their interpretations, and some may here and there have shown slight signs of partial intoxication amid the wonders of discovery on discovery which have rewarded their endeavors; but, with due allowance for everything of this sort, there remains a great mass of *facts*, hard and solid as the rock on which the vast structure stands, from which the answer of "not proven" must rebound very damagingly upon those who propose to abide by it.

It is needless to recapitulate here the scientific *data* already described (though with some disabling brevity) in the preceding Lectures. All that is there stated respecting the geometrical, cosmical, astronomical, metrical, geographical, and mechanical features of the Great Pyramid, and very, very much more, has been amply tested by the very best scientific ability, and may be seen fully set out in all their invincible wonderfulness in the more thorough works which are happily multiplying on this

subject. The world may safely be challenged to refute these grand *facts*, whether they be put down as coincidences or aught else. *They are proven*, and they must stand, whatever men may make of them. And every attack upon them thus far has only served to bring them out with more clearness, and with ever-increasing recruits for their defence.

There can be no question now as to the fact that the form and relative dimensions of the Great Pyramid exhibit practically the circle squared, or that it is built to the mathematical proportion of a diameter to a sphere. The length of its four sides is the exact equal of a circle drawn with the Pyramid's vertical height for a radius (see Chart). In other words, it is an architectural embodiment, in a solid stone edifice, of the mathematical π, the value of which, in determining the relation of a sphere to its diameter, is 3.14159 plus a slight incommensurable fraction. When this was first discovered, and announced as something very significant, the answer was that the measures were not sufficiently attested to warrant the acceptance of it as a fact; and that, if it had this appearance, it was a mere coincidence or accident from which nothing can be argued. Since then the measurements have been more

narrowly and fully determined, and the various commensurations, within and without, more exactly ascertained; but every fresh addition to our knowledge on the subject has contributed to the overwhelming demonstration that the Pyramid is really a memorial of the π proportion, and that this is the grand key to much of its import. What is solidly given in the external dimensions meets us again wherever we go in the interior.*

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* Thus, if we take the length of the King's Chamber, 412.132 inches, and let it express the diameter of a circle, then compute the area of that circle, and throw that area into a square, it will give the exact size of the Pyramid's base, and just as many Pyramid cubits to each side as there are days in a year.

Again, take the same length as the side of a square, find its area, throw it into a circular shape, and the radius of that circle will give the number of cubits in the Pyramid's vertical height.

Again, take the circuit of the north or south wall of the King's Chamber in the entirety of the granite, divide it by that chamber's length, and the result is π.

Thus, by substituting areas for circumferences, that oblong, rectangular room, through the operations of π, answers intellectually to the square-based and five-pointed exterior memorialization of the same proportion. And in the Antechamber, between the Grand Gallery and the King's Chamber, the same use and reference to the π proportion is to be traced.

Thus the east wainscoating of the Antechamber is cut down to the extent of half the width of the King's Chamber, equal to the length of the granite in the Antechamber floor, and to the length of the side of a square whose area is equal to that of a circle drawn with the whole length (granite and limestone) of the floor for a radius.

It therefore pertains to scientific men to say what is to be made of all this. Will they say

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Again, the entire length of the Antechamber floor, multiplied by π, gives the exact number of days in a year.

Again, the number of cubic inches contained in the granite leaf which hangs across the Antechamber, measured to the edges of the dressed surfaces, is 10,000 π.

So, likewise, in the Queen's Chamber, the height of that significant niche in the east wall, multiplied by 10 π, gives the Pyramid's vertical height.

Also that niche, to its inner long shelf, multiplied by 10 π, gives the Pyramid's base-side length.

Also the square root of ten times the height of one of the Queen's Chamber end walls, divided by the height of the niche, is π.

So, again, the lengths of the first ascending passage and the Grand Gallery added together, or the total of ascending line, divided by π, gives the length, as far as it has thus far been measured or calculated, of the entrance passage from the original surface to the first ascending passage.

The thirty-sixth horizontal course of stones in the structure of the Great Pyramid is remarkable for being nearly double the thickness of the courses immediately below it. The base of that peculiar course is just ten times the height of the Antechamber; and the distance from the vertical centre of the edifice to the nearest point of either side at that height, divided by 10, gives the number of days in a year, and the same divided by the vertical height of that point is π, or the proportion of the diameter of a circle to its circumference.

So, again, in the Coffer, there comes out the same irrepressible π. The height of the Coffer is to the length of its side and end as 1 to π. The Coffer's depth, multiplied by the area of one of its long sides, is π. A circle, with the breadth of the Coffer's base for a diameter, or a square, with the depth of the Coffer, gives the external area of one of its long sides, divided by π.

So, again, in the interrelations of the several main parts of the Pyramid as a whole, the King's Chamber, and the Coffer. In

it is mere accident, and just happened so? As well might they pronounce the placement of the figures in the multiplication table an accident. Will they say it was part of the common science of the period? Then how came there to be not another vestige or trace of it in all the world for three thousand years but in this one single memorial? There are dozens of other pyramids in Egypt, and massive remains in various countries, dating to a very remote antiquity, and why does no trace of it appear anywhere in any of them? The new theory on this subject fully explains all the facts, and if we are not to accept that theory

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each of these three one rule governs the shape of each, namely, the two principal dimensions added together are π times the third. The Pyramid's length and breadth thus equal π height; the King's Chamber length and height equal a breadth; the Coffer's length and breadth equal π height.

All these and numerous other such propositions have been thoroughly worked out by competent mathematicians, and, any one able to perform the necessary operations, needs only to refer to the actual measurements in order to verify all for himself. Indeed, men might as well undertake to deny that the Pyramid exists as to deny the ascertained and demonstrable omnipresence and constant use of these mathematical ideas in its construction and arrangements. The discoverers and demonstrators of these facts are Mr. James Simpson, Mr. St. John Vincent Day, Prof. H. L. Smith, Captain Tracy, R.A., John Taylor, Prof. Smyth, etc. Many of the facts are given in Johnson's New Universal Cyclopedia, article "Pyramid," and in the last edition of Our Inheritance in the Great Pyramid, by Prof. Smyth, 1877.

it devolves on those who reject it to give us something else that will explain them.

It is also a fact, that, the more science becomes sure and accurate in its enunciations, the closer do they come to the indications in the Great Pyramid. A remarkable instance of this has recently occurred with reference to the problem of the sun-distance.

By observations of the transit of planets, from the lunar irregularities, by experiments touching the velocity of light, and from perturbations in the courses of the heavenly bodies, very many attempts have been made to reach a solution of this problem. In 1824, Encke gave the distance as 95,370,000 miles, and his estimate has been most generally received. For some years, however, his figures have been regarded by scientists as from 1 to 2½ millions of miles too high, and the expectation has been that the universal and expensive arrangements for the observation of the transit of Venus in 1874 would furnish the *data* requisite to settle the matter. The full results of these observations, made under the most favorable circumstances, and with the most refined astronomical apparatus, have not yet transpired; but they are beginning to come out, and altogether more favorably to the Pyramid indications,

which give the mean sun-distance as 91,840,000 miles. The English estimate, which Prof. R. A. Proctor pronounces "a satisfactory one," now stands at 92,600,000 miles, a reduction from the old estimate of 2,770,000 miles nearer to the Pyramid indications. In France, M. Puiseaux, who has bestowed very great and laborious attention to the subject, and who feels confident that he cannot be more than a few hundred miles in error, puts down the most recent estimate of the sun's distance at 91,840,270 miles, or 759,730 miles still nearer to the Pyramid indications, and actually within 270 miles of the exact Pyramid figures! On the announcement of this result, the French paper, *Les Mondes*, very justly exclaimed, "*La Grande Pyramide a vaincu*"—THE GREAT PYRAMID HAS CONQUERED!

A very interesting fact has also been brought to my knowledge by Commodore Whiting. In the communication to which I have already referred, that learned gentleman writes me concerning the desirableness of the Great Pyramid as a meridional zero for the universal computation of longitude, and says: "My friend, M. F. Maury, whom I succeeded in command of the U. S. Observatory at Washington, was probably the greatest geognost in the world. His attention

was directed to the nether or lower meridian. The English, and all nations using the English language and charts, compute their longitude from Greenwich, the French from Paris, the Spanish from Cadiz, the Russians from Cronstadt, etc., adopting these as the initiatory meridians of their respective charts, and 180 degrees therefrom as the nether meridian. In sailing around the world (so common nowadays), persons going west lose a day in their calendar, and persons going east gain a day, so that circumnavigators, to prevent the confusion of dates that would otherwise obtain, drop a day in the latter instance, and duplicate one in the former when crossing the nether meridian. Different nations having different nether meridians creates confusion, and Maury said *all* nations ought to agree on a common nether meridian. The English, French, Spanish, Russian, etc., all have their nether meridian to pass over inhabited portions of the earth, so that persons but a few feet apart, if upon different sides of the nether meridian, would have different calendars, and to the one it would be Monday while to the other it would be Sunday; and Maury sought for a general nether meridian that would be free from this disadvantage. Such a meridian he pronounced

to be about that degree west of Greenwich, which is the exact nether meridian from the Great Pyramid. He thus clearly designated the meridian of the Great Pyramid as the proper initiatory meridian for the world." It was an unconscious designation—a conclusion reached without any thought or knowledge of any relation between it and the Great Pyramid,—and it is another instance in which the best results of the best science bring us back to what was immortally embodied in that wonderful pillar of four thousand years ago.*

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* Some have thought that I made a great blunder when I said (page 70), that "the Great Pyramid stands on the line which equally divides the surface of the northern hemisphere." A man high in place, and all his life having practically to do with science, wrote me: "It is a mistake so gross that I think it must be either a misprint, or a slip of the pen." He said "the paragraph evidently should read, that the Pyramid is built on the latitude which marks the *third* distance from the equator to the pole, as the half distance is about forty-five degrees, nearly one thousand miles from the Pyramid at the nearest point." I replied that I had not spoken of a meridian of distance from the equator to the pole, but of "*the surface of the northern hemisphere*"—the whole surface of the earth north of the equator. I also submitted to him, and other ready mathematicians, the following problem: *What parallel of latitude equally divides the entire earth surface* (*land and water*) *lying between the equator and the pole?* requesting its solution by the best scientific processes, and to give me word of the result, if it did not tally with my statement. I had not thoroughly worked out the problem myself; but as the lines of longitude all terminate in a point at the pole, and the earth itself is very considerably flat-

Adverse Inquiries.

But few of the notices of these Lectures attempt any argument on the subject. It was not to be expected that they should. Several points, however, have been made, to which it may be desirable to allude.

A prominent and pervading objection in a number of the adverse judgments given is, that the whole presentation is *too fanciful for belief*. If by this is meant that what is stated for *fact* is nothing but the work of an enthusiastic imagination, we can only pity the uncandidness and flippancy of those who make the assertion, and appeal to the records of explorers

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tened in its polar diameter, I concluded, on a rough estimate, that about the thirtieth degree from the equator would give the line sought. More than five months have passed since I submitted the problem for thorough mathematical solution, but no reply has yet come to indicate any error in my statement.

It may also be worth while to note here that Commodore Whiting is of opinion that the fact that the Great Pyramid is situated a little below the thirtieth degree of north latitude, is perhaps meant to refer to the ellipticity of the earth, and to mark just one-third of the line of its meridian from the equator to the pole. For those who wish to work on this suggestion I give the results of observations upon the exact latitude of the Great Pyramid, viz.:

M. Nouet's observations make it 29° 59′ 6″.

Piazzi Smyth's, with Playfair instrument, 29° 58′ 51″.

Shifting westward to avoid low ground, 29° 59′ 12″.

and investigators, which, if not to be credited, leaves nothing on which to believe that the Great Pyramid exists. I claim to have given *facts*, not fancies; and it is that wonderful array of *facts* that men are now called on to deal with. My inferences from those facts may, perhaps, be faulty and illogical, but that can only be fairly determined by a full canvassing of the facts, and first obtaining a complete and appreciative understanding of them, which cannot be the case with those who superciliously dismiss the whole matter as nothing but romance and fable.

Nor should we forget that it is a very old and familiar thing for people petulantly to brand as silliness and lunacy whatever unpleasantly cuts into their old round of thinking, or unwelcomely disturbs their pleasant ease. It is a cheap way of getting over what would otherwise be inconvenient. It was after this fashion that the Jews set aside Jesus of Nazareth, and that many of Paul's hearers spoke of him. And so the early Christians, as a class, stand registered in the annals of Pagan Rome. But were these fanatics? Was their cause that crazy thing which so many were pleased to regard it? Were the people who so disposed of it the just, sober, and wise

ones in acting thus? Do not all believers, who have since lived, unite in holding them very blameworthy and unreasonable? A thing is not a wild, fanatical conceit, because some may treat it as such. When a serious subject presents itself, it argues very unfavorably for people, without examination, to pooh-pooh it as nonsense. True philosophers and candid inquirers for the truth never proceed after that fashion. And if men would, indeed, exemplify the superior sense and moderation which they are so facile in assuming to themselves as their particular monopoly, they have need of a goodly degree more of reserve than some have shown in their offhand characterizations of the fair and honorable efforts of their equals to gain attention to a great subject.

One publication, generally appreciative and just, propounds the question: "If all that is said of the superior intelligence embodied in the Great Pyramid is true, how is it that four thousand years had to pass away before a hierophant of the sacred mystery appeared?" We might ask the same question with regard to the wonders of steam and electricity, the circulation of the blood, the uses of stone-coal, and a hundred other things more naked and open to the view of universal man for nearly

six thousand years than the Pyramid has been to anybody, except within the past few hundred years. How is it that no one ever appeared until so recently to tell us what was before all eyes unread and unsuspected for such scores of centuries? So, also, infidelity asks, Why did not Christ come with his alleged light and salvation till after four thousand years of apostasy and darkness were allowed to roll their weary ages over the race? Such a question at best is wholly out of place as against facts duly ascertained; for facts proven must be admitted, whether we can explain them or not. Besides, in the case of the Great Pyramid, a vital part of the theory is, that the intent in its building was to set up a prehistoric monument, which should pass unrecognized as to its object through all the ages of history, in order to disclose its message in the last period of this world, and by its marvellous testimonies to confound and leave without excuse the blatant unbelief and ruinous skepticism foreseen and foretold as one of the characteristics of the last times. It found no interpreter, because it was part of the intention that it should have none; and because, according to its purpose, it would have been out of time and place to have one till the

period for which its great message was meant had arrived.

In the same spirit and with the same intent another paper inquires: "Granting everything the author says, if the human intellect had not first found out all these truths, how could he ever find them in the Pyramid?" This inquirer is at fault in assuming that everything claimed to be symbolized in the Great Pyramid has been found out by "the human intellect." Some of these things are purely subjects of divine revelation as contained in the Scriptures. With this correction I am very free to admit that, without the Bible to put me in possession of the doctrines and prophecies therein presented, and without the results attained by modern science, it would be impossible for me to read anything in the Great Pyramid which is now found there. But a man's inability to read the Bible does not prove it empty of truth. Neither does a man's ability to read what is there prove that its contents are from the unaided human intellect. So in this case, though science be required to read and understand the science symbolized in the Great Pyramid, the spirit of inspiration may still have been necessary to put that science there—seeing that it was put

there—before the days of science. The point is, not that miraculous inspiration alone could teach man the truths pertaining to the physical universe, but that the framing of so complete and comprehensive a monument of those truths before modern science began to be, and before the human intellect had at all found them out, argues the efficient presence of a superhuman Intelligence, and so furnishes a demonstration, in science's own field, of the reality of miraculous inspiration, which science in its pride is now disposed to question and deride. It is an argument addressed to science, and hence requires the presence of science; and, until human science was, and had come out of its babyhood, of course the address could not be delivered nor understood, as neither was it needed.

As I understand the Great Pyramid, and the true way of viewing it, it is not so much to acquaint the world with scientific truths otherwise unknowable, but to show, as those truths begin to be known, that they were memorialized on earth by men chosen and inspired for the purpose before mere human science could possibly find them; that men, having monumental evidence of this fact, might not, in their vain conceit, exalt themselves

against their Maker, disown Providence, deny revelation, and undertake to rule the Almighty out of His universe. It is, in my understanding, not so much to give us new revelations as to furnish monumental substantiation of old ones, of which the prophets from the foundation of the world have spoken, and which the perversities of this age are persuading mankind to surrender, explain away, deny, or otherwise to put aside for a profane homage to a new Juggernaut, bearing the fascinating name of PROGRESS.

But, says another, "If the Pyramid was built with so thorough a knowledge of geography, astronomy, science, and theology, as now supposed, what became of it in subsequent ages? It is strange that we find no traces of such attainments in aftertimes among the Chaldeans, Assyrians, Phœnicians, Greeks, or the Egyptians themselves. The Copernican system was not accepted, even by the most advanced thinkers, until more than three thousand years afterwards. Could a system so simple, so beautiful, and so easily demonstrated to be correct, ever have been lost to the world after it was once clearly understood?"

I thank this writer for the positiveness with which he affirms the total absence of any trace

of such science as is now being read from the Great Pyramid in all the records of the time and for thousands of years afterwards, save in this marvellous pillar. It is the truth, and a most significant truth. The writer alleges it as a sort of *a priori* reason for not crediting any of these reports about the high science embodied in the Pyramid; but it is really one of the foundation-stones on which its highest claims repose.

Whether the Great Pyramid really does witness to the superior science claimed to be embodied in it, is a question which must be determined, as a matter of fact, on its own independent evidences. If this alleged wisdom is proven to be there, the fact must stand, whatever other conclusions it may necessitate, or however it may transcend the thoughts and beliefs of the nations then and for thirty centuries succeeding. If it is there, it is there, and all the *a priori* reasoning in the world cannot make it otherwise. And there it most certainly is. There is the most evident memorialization of the wonder-working mathematical π. There is the most evident notation of the rotundity and rotation of the earth, its annual revolution around the sun, its mean distance from the sun, its mean temperature,

its weight, its diameter, its land distribution, and the exact way every part of it lies with regard to the four cardinal points. There is the most evident notation of the true year, of the grand precessional cycle, and of the proper beginning and length of both. Every one living and capable of comprehending these particulars can read and trace them there in the various measures, pointings, angles, and counts, as readily as he can work the commonest arithmetic rules, or demonstrate the theorems of geometry, or read the constellations. None of these things were truly known to any nation of the time, or for a score and a half of centuries thereafter. Until the days of modern science there is no other trace of them on earth in all the records, monuments, or remains of intellectual man. Shall we say, then, that the getting of these things into the Pyramid is mere blind accident and meaningless coincidence? Why, then, has the like occurred but once in the first five thousand years of man's existence? Might we not as well take up the tables of our annual almanacs, and seeing them accurately fulfilled as the year rolls round, say, "These are very marvellous coincidences, but it is all blind guesswork; it has only happened so; the men

that made those almanacs really knew nothing at all about it!" Which would be the more reasonable, to believe our annual almanacs to have originated in haphazard guessing, or to set down the Great Pyramid's memorialization and constant use of π, as a mere fortuitous coincidence, neither understood nor intended by the architect? And if these ancient builders did understand π, and build to it, and lay up in stone a hundred items of most extraordinary intelligence by means of it, where did they get it? How came they to be so grandly informed above all the children of men for five thousand years? Can there be any other rational answer than that which I have indicated in these Lectures? Verily it was God's special gift to them for this one individual purpose, that they might build unto Him, "in the midst of the land of Egypt," an *altar-pillar*, which, in the latter days, should "be for a sign and for a witness unto the Lord of hosts."

But we are asked, if men four thousand years ago had such superior knowledge, what became of it? How could it be lost? I might as well demand, how came the world to lose that knowledge of the true and only God which man so eminently possessed in the beginning of his history? But I will not press

such an inquiry. The high knowledge vouchsafed to the builders of the Great Pyramid was for a particular end, and that end was not the enunciation of it to the world that then was, and was in so poor a condition to receive or profit by it, but for unique memorialization as a message to a long-after age of boastful science, self-defying theorizings, and a too confident glorifying of the power and infallibility of man's reason. *Lost!* It has not been lost. It is there, exactly where those noble "sons of God" put it, as directed by the Father. It has come over the chasm and waste of nearly forty and a half centuries without a word or syllable missing. There lie its tables of stone, approachable to all this world of adored progress, and challenging all the supercilious *savants* of unbelief to look, understand, and learn wisdom. What became of it? Why, having made its intended voyage in safety across the sea of ages to our world, and begun to speak its grand message to those for whom it is meant, those who should most gladly welcome its glorious testimony for God and his universal truth, and most willingly give themselves to an earnest searching out of what it has to say, insult it in the halls of science, scoff at it with vulgar jests, array it

in robes of mockery, make merry over its strange speech, disown it because it will not link itself with their false philosophies, and insist on gibbeting it, or stamping it out for ever, because it puts forth claims to be heaven-born and heaven-sent! This is what has become of it.

But this inquiry about what became of such knowledge, taken as an argument against the claims now made for the Great Pyramid, grounds itself upon an assumption which cannot be maintained. It assumes that those who built this monument fully understood and thoroughly comprehended everything which now turns out to be contained in their edifice. This, as a recent writer justly says, "is not warranted by the logic of facts nor the logic of reason." God's works as a whole, both in nature and providence, are so correlated, and are projected on such a constantly recurring unity of plan, that one department is ever translatable into another—the natural into the spiritual, the earthly into the heavenly, the microcosm into the macrocosm, the sectional into the general, the lower into the higher, the units into the multiples, the exterior into the interior, the beginnings into the endings, the physical into the intellectual—

and each part so coheres in the one thought of the one eternal and all-embracing MIND, that truly and adequately to symbolize one department necessarily includes like truths in other departments, though unconsciously to those framing the symbol. This one great fact, of which we now have so many illustrations, and which is so reasonably inferable from the origination and ordering of all things from and by one and the same infinite and eternal Intellect, completely answers the captious objections made against pyramidologists for making the same lines, angles, measures, avenues, rooms, and stones refer to so many different things. If God arranges that the leaves shall come out on the stems of the various plants in an order coincident with the relative distances of the several planets from the sun, where is the unreasonableness of it? or, what confusion does it introduce between botany and astronomy? Because the fifth chapter of Genesis, read acrostically in the import of its names, gives us the history of human redemption, what hindrance or absurdity does that interpose to the reading of it as the obituary list of the antediluvian patriarchs? Does not the same alphabet spell all our words, and by its various combinations

serve to record all our knowledge? And when, by reading certain features of the Great Pyramid in one way, we get one circle of truths, and by reading them in other ways, based on Pyramid presentations, we get quite other circles of truths, or trace in one part coincidences with readings in a different kind in another part, where is the illogicalness of it or the confounding of things any more than in the cases just named?

When one thing in God's works is itself the symbol of other things in His works, it is only necessary that the constructor of the expression of it should understand the one in order to include the other. And considering that the Great Pyramid was built not for the people who then lived, but in order to convey a divine message to the science world of our day, it is not at all implied that its builders consciously understood even the half their work really expresses. The prophets did not always understand what they were inspired to write. The holy record itself tells us that they inquired, and searched, and tried to find out, but never fully comprehended what and what manner of time the Spirit that was in them did signify (1 Peter 1:10–12). God's truth was amply embraced in what they wrote, and

in long after time was seen to be fulfilled, and served all its intended ends, notwithstanding that the writers themselves were not thoroughly in the clear about it. And if the prophets could truly enunciate the divine purpose without fully comprehending it at the time, much rather could these builders of the Pyramid do their work, under the direction of the same Spirit, without understanding all that was afterwards to be read from the various features of the mighty edifice they were commissioned to rear, and seal up till the time of the end. Who is prepared to maintain that Moses fully comprehended all the relations and symbolic meanings which are now seen and known to be contained in the various institutes, constructions, and erections which God directed him to make? Are we therefore to deny that these symbolisms are there? How unreasonable and illogical, then, to assume that the men who built the Great Pyramid must necessarily have understood and practically mastered and digested all the scientific and religious facts, histories, and prophecies capable of being deciphered from their work; or to argue that, because the heathen nations give no evidence of ever having had such a wisdom, we must conclude against the

possibility of finding it in the Pyramid. On the contrary, science now proves that a high science is there, and for the very reason that for so many, many centuries no other trace of it appears in the works of man, the conclusion should rather be that it was put there by the special inspiration of God, just as the symbolisms of the Tabernacle and its arrangements were put there by Him, and for a corresponding purpose.

The Pyramid and False Philosophy.

The apologetic worth of the Great Pyramid in the argument for a correct understanding of the origin, history and destiny of man, should, of itself, command for it the favorable interest of every intelligent inquirer, and especially of every Christian.

We live in a skeptical age. In religion and in science the temper is in the direction of Rationalism and unfaith. Humanity has become boastful of its intellectual power, and, proudly aiming to be "as God," it has become sensual and devilish. If any one will be at the pains to analyze what are considered the proudest achievements of modern mind, he will find them thoroughly materialistic, if not exclu-

sively so, and really but little else than inspections and manipulations of the lower elements,—searchings into the ground,—till it has come to be concluded in leading circles that everything is derivable from *mud*, without a personal God, or need of revelations from Him. This spirit is in the prevailing philosophies, in the popular theories of politics and legislation, in the noisy social reforms of the day, and in the most approved religious activities, reacting upon theology itself, eating away sound doctrine, and substituting the rationalistic fancies of men for the teachings of Jehovah. Even good and honest people are unconsciously full of the noxious miasma. From looking up towards heaven and the eternal realities, there is a proneness, a looking down toward earth, and earthly interests and outcomes. When we search into the inner heart of modern thought and feeling, we find lodged there, in one form or another, and more or less affecting the whole practical bent of the age, this doctrine, that man is an ever-improving growth, that nothing of truth and good is ever forgotten, and hence that the career of the race is ever upward and advancing. PROGRESS is the watchword which tells the story. Some make the beginning lower down, and some locate

the outcome higher up; but when the whole is resolved into its real elements, *Evolution*, rounding up at last in a grand millennium of wisdom, peace, and blessedness in this present world, is about the sum of the practical beliefs and teachings of our times. The kind, the degree, the specific factors depended on, may be different with different classes, but the type is the same. If we look at the museums and the books intended for the instruction of the people, we find them confidently exhibiting a stone age, a bone age, a bronze age, and an iron age, as marking the eras of man's coming up from monkeyhood or savagism to an ever-improving science and civilization. The treatises on fundamental law largely assume the same thing, and derive society and government from the concession of brute rights to political rule—as a development from man himself, with no other foundation. Theologians fall into much the same vein, and find the essence of the faith rather in the aggregate of growing sentiments and opinions than in the supernatural revelations of God, and preach a grand era of triumph to come out of human agencies, activities, and progress. The underlying seed-thought is *Development*, till all defects are superseded, and hell itself is abolished,

by the unceasing improvement and improvableness of man. After all, *Evolution is the faith.*

There is, indeed, a true doctrine of development, but it is wholly different from that which so pervades, infests, and degrades our modern science and theology. Nor is there anything more needed by the present world of mind than an effectual corrective for the false philosophy which is so influencing and debauching it.

The truth is in the Scriptures, if men could only be persuaded to regard it. The history of man as there given, is not at all that assumed by the progressivists. There the first man was the most perfect of all mere men, the most knowing, and the most exalted. That rare and special *rapport* with the Supreme Intelligence, which for certain gracious purposes was afterwards vouchsafed to the prophets, was Adam's normal condition. The highest state of mind, heart, qualification for a perfect human existence, and equipment for all the sublimest duties and relations pertaining to his earthly life and destiny, were realized in him, as he came from the Creator's hand. A stone age, or a bone age, or a gaunt prehistoric savagism, cracking the bones of wild beasts to

get at the marrow, finds no place in these sacred accounts of man's beginning. No such hairy, wolfish, ignorant, and base tenant of the marshy woods or dripping caves did God behold and bless when he set Adam and Eve in the world as the image of Himself, and pronounced them "very good." A terrible calamity soon ensued to blight man's pristine glory, so that everything since naturally developed from him has been only deterioration and downwardness. But all his superior mental endowments and knowledge did not at once cease to be. He was still a most exalted, knowing, and civilized man, even after his sad disobedience, and for all his life of nearly a thousand years. His first sons were civilized men, who from the first tilled the ground and herded the flocks. While Adam lived there were musical instruments, musicians, and workers in brass and iron. Before the flood came mankind had all the requisite tools, skill, and capacity to build a ship greater than the Great Eastern. Noah, who came over the flood in that vessel, still lived while one of his descendants built four cities, and laid the foundations of the world's first empire. A few hundred years later Abraham appears as a highly civilized man, and finds an established government

and great kingdom, with all the appurtenances of a busy and vigorous civilization, in Egypt. At the same time Chedorlaomer is king of Elam, and allies himself with other kings, and finds kings of Sodom and Gomorrah to make war upon. And so the indications, as given in the Bible, all are, that the primitive peoples were not savages; that they had letters and laws, records, arts, sciences, society, government, worship, and everything in greater perfection and purity than all the boasted developments of man in these later ages.

This ought to be enough, and to some, fortunately, it is enough. But the general mind is not convinced. Science is disposed to ignore it altogether, and to insist on a totally opposite theory. A proud and pervading skepticism makes it the subject of special attack on the Scriptures, a supercilious rationalism explains it away, and *Evolution is the faith.*

As far as we are able to trace the history of man from his works and remains, the scriptural narratives would seem to be borne out in every particular. Everything that is known of the primeval peoples shows them coming upon the scene together and with a full-fledged civilization. Beginning with modern Europe, we can trace man back through the Middle

Ages to Rome, through Rome to 750 years before Christ, and then through the Greeks to the Trojan war, about 1200 years before Christ. By the aid of modern explorations and discoveries, in Mesopotamia, Egypt, Persia, Arabia, India, China, tc., we are carried back to from 2000 to 2500 years before Christ. But there, within a circle of a few hundred years, all traces of man disappear. Some of the nations have claimed a much greater antiquity, but no monumental remains are to be found to prove them any older than these dates. Man has left no memorials which can be proven to be older than 2800 years before Christ, nor have any been found certainly so old as that. Within a few hundred years after that date the existing remains are numerous, and in all of them we find writing, engraving, husbandry, government, vast architecture, science references, brilliant dressing, elaborate ornaments, metals, jewels, cities, temples, and all the paraphernalia of a high civilization, just as the Scriptures represent. But still the restless public mind is not convinced, nor ready to settle down upon the truth—EVOLUTION IS THE FAITH.

Here, then, comes in the Great Pyramid to crown and seal the argument. It is a tangi-

ble monument, which dates back to within two hundred years of Egypt's beginning as a nation. It comes from far beyond the historic times. It was built by those primeval peoples, of whose gradual education from savage life not a particle of proof can be produced. Stone implements are found in Egypt, but there is no evidence that they are any older than the Great Pyramid. That greatest and oldest of all existing edifices on earth was not built with stone saws and bone mattocks. Iron and steel were required, which in turn required furnaces, and art, and high civilization to produce them. We know that iron tools were used in the Great Pyramid's construction, for one was found by Colonel Howard Vyse's excavations imbedded in the cement where no opening was ever made before from the time the building was erected. It is a large piece, and may be seen in the British Museum, in London, proving the high civilization of the people who used it.*

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* Where did the Egyptians, at that early day, get the immense quantity of iron required for all the tools that must needs have been used in erecting such an edifice of cut rocks, occupying 100,000 men for thirty years, seeing that there is scarcely any workable iron ore from one end of the Nile to the other?

St. John Vincent Day, in a paper read before the Philosophical Society of Glasgow, in April, 1877, has given answer to

In this edifice is the demonstration also of a wonderful genius and skill for cutting, dressing, transporting, handling, fitting, cementing, placing, and polishing the greatest masses of the heaviest and hardest of rocks. No greater building of solid masonry is known ever to have been in our world. The perfection of

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this question. The Sinaitic mountains and hills are known to be full of iron of the most excellent kind. A Mr. Hartland, some years ago, established himself in that region for mining purposes, and there, near Surabit-el-Khadem, and not far from Wady Meghara, he found, not traces merely, but colossal remains, of *iron works and furnaces*, belonging to the earliest kings of ancient Egypt, and on a scale so vast as to be testified to by almost mountainous heaps of genuine iron slag and veritable iron furnace refuse (see Proceedings Soc. Antiq., vol. v, 2d series, June, 1873). Nay, what is still more remarkable, here also, in the immediate neighborhood of the ancient piles of slag, is a tablet containing the *cartouches* of Shufu (Cheops) and Nem-Shufu, the same as in the quarry-marks discovered by Colonel Howard Vise on the hidden stones in the Great Pyramid! These records are engraved in a soffit in the face of the natural rock, where they directly overlook the scene of the furnaces. They begin with the name of Soris, the immediate predecessor of Cheops, under whom the Egyptians seem to have been put through the apprenticeship of working in iron. One of Egypt's ancient kings also appears on the monuments with a name which means "*a lover of iron.*" The proofs are that Egypt, in the period of the Great Pyramid's building and immediately preceding, did here devote itself immensely and effectively to the manufacture of iron, and so became supplied with the metal implements necessary in the building of the Pyramids. And all this was in that very period which is put down by the progressive development philosophy as *the stone age of man's infancy and savagism*'

the workmanship, and the mechanical accuracy, and the intellectuality of the calculations in the construction and emplacements, have never been surpassed in any structure in any age. On its stones, too, are the proofs that the builders could read and write. And with such an edifice before us, come down to us from almost the remotest extreme of the known prehistoric ages, and bearing with it these undeniable marks, how overwhelming is the demonstration against the evolution philosophy! Well may the skeptical Renan confess and exclaim: "When we think of this civilization, that it had no infancy; that this art, of which there remain innumerable monuments, had no archaic period; that the Egypt of Cheops and Cephren is superior, in a sense, to all that followed; *on est pris de vertige.*"

But when to all this we add, as we must, those higher and sublimer things of the Great Pyramid, of which Renan then had no conception,—when we add the high mathematical principles, the astronomical calculations and references, the cosmical knowledge and symbolizations, the metrological embodiments and indications, and the geographical aptitudes so unmistakably identified, capable of being read only in the light of the highest achievements

of modern science, and enunciated with a definiteness and precision which modern science has in most instances not yet reached,—when we trace here a symbolized epitome of universal truth and knowledge, much of it beyond any science of mere man, and nowhere traceable on earth, save here and in the Scriptures, Renan's fit of giddy consternation must needs be intensified into most stunning and crushing disaster. The evolution philosophy, whether in science, art, or theology, here meets a massive and invincible contradiction and catastrophe, which buries it under five million tons of worked marble and granite! It must lift the Great Pyramid out of the path of human history, or it is in all sound reason estopped forever, and all its kindred Rationalism with it.

Of course the made-up evolutionists will not agree that the Great Pyramid has killed their god. It is not to be expected that they will yield at summons to such a thorough revolution and reconstruction in their favorite and life-long theories. How can they patiently resign what is so much a part of their proudest boast and being? And hence it is that the presentations concerning the Great Pyramid appear to them so absurd and ridiculous that any silly question or clever trick is deemed

answer enough to all the showings on the subject. But if the mighty monument is to be allowed its full say, all the subtle theories that contradict or emasculate the Bible story must take defeat, from which there is no recovery.

Some Additional Particulars.

Since the publication of the preceding Lectures several further items have been brought forward with regard to the Great Pyramid's symbolizations, to some of which it may be desirable here to allude.

If this great monument really presents what I have indicated with reference to astronomical and cosmical truths, we might reasonably expect it also to embody some *data* respecting the alternation of the seasons, and the causes by which these differences in the course of a year are produced. The same would also seem to have been discovered in the eccentricity of the placement of the entrance tube. That entrance is not in the centre of the building, but a little to the eastward. Of and on this displacement, Mr. Cockburn Muir, civil engineer, has made calculations, and mathematically treated them in connection with other Pyra-

mid numbers and proportions, and found the indication of an angle equal to 23° 57′ 50″, which he regards as an expression of what the obliquity of the ecliptic was in the year the Pyramid was built. Having calculated for the degree of eccentricity of the ecliptic in B.C. 2170, the result came out coincident with the angle he had deduced from the entrance passage displacement within 49″. Another and earlier calculation, however, made with particular care by Mr. J. N. Stockwell (printed in the *Smithsonian Contributions to Knowledge for* 1872), presents the obliquity of the ecliptic, in 2170 B.C., as 23° 57′ 50.2″, exactly within two-tenths of a second what Mr. Muir calculated from the Pyramid that the angle should be. The processes are indicated in Prof. Smyth's last edition (1877) of *Our Inheritance in the Great Pyramid* (pp. 401–7). The angle of the obliquity of the ecliptic at present is given in the books as 23° 27′ 30″.

The same displacement in the number of its inches (three hundred and a small fraction), also gives the ellipticity of the earth, or the amount of the protuberance at the equator over its polar diameter, which science has registered at *one three-hundredth*, or close thereto, and on which rests that remarkable

feature in the appearances of the heavens which makes the precessional cycle.

During last winter a gentleman from Switzerland, who became particularly interested in my remarks on the Pyramid's symbolizations of Christianity found in the Grand Gallery, called my attention to a fact which he regarded as singularly confirmatory of the presentations on that subject. Everything in Christianity, he justly said, rests on, as it practically perpetuates, the life, death, resurrection, and ascension of Jesus Christ. Those rampholes, in connection with the vertical settings into the walls beside them, refer back to the death and resurrection of Christ symbolized by the "well," and express the same as spiritually wrought into the experiences and hopes of all true Christians. And so, he said, the number of inches in the whole length of the Grand Gallery, divided by the number of these rampholes, gives the exact number of years embraced in Christ's earthly life, from his birth to his ascension into heaven, namely, 33 years and nearly one-half.

It may also be observed, that the length of the Grand Gallery in inches, divided by the number of stones by which it is covered, gives the exact number of weeks in a year, including

the fraction, and that these thirty-six roof-stones likewise count the number of millions of cubic inches of space inclosed in the Gallery, of which they are the ceiling.*

* A correspondent has also called my attention to other passages than those which I cited in the preceding Lectures in the Book of Job. He thinks he can trace various indications, assertions, and allusions in that remarkable book, as I believe he can, which strongly confirm some of the points suggested in these Lectures. He refers particularly to Job 26:13, as very distinctly assigning the framing of the constellations to a divine source, and specially singling out the constellation of the dragon or serpent, as formed of God, and which is one of the foundation references in the Great Pyramid. Job is there describing the power, majesty, and doings of God, and says: "By his Spirit he hath garnished the heavens; his hand hath formed the crooked [or *fleeing*] serpent." The annotator in Bagster's quarto Bible very pertinently remarks, that the last statement must refer to some constellation, "as it is not likely that this inspired writer should in an instant descend from garnishing the heavens to the formation of a reptile." Barnes says, "There can be no doubt that Job refers here to one of the constellations, which, it seems, was then known as the serpent or dragon." But if so, then the garnishing or adorning of the heavens in general, must refer to the arrangement of the constellations in general, of which the making of "the fleeing serpent" is one. And so Barnes concludes: "The *sense* in the passage before us is, that the greatness and glory of God are seen by forming the beautiful and glorious constellations that adorn the sky;" not simply the stars of which they are composed, but the figures by which they are designated. There is also a very full and evangelic theology contained in these constellations which can easily be read, and which is so utterly confounding to the rationalism of our day that there ought to be no delay in bringing it out. They are *the Gospel on the sky*, formed of God, or by "his Spirit" inspiring men for the purpose, and the Pyramid is their earthly counterpart.

A few months ago a Pennsylvania clergyman, much interested in these studies, and strongly impressed with the arguments for the supernatural origin of the Great Pyramid, suggested that if the Grand Gallery represents the Christian dispensation from the birth of Christ to its end, there would probably be some reference to the great Reformation of the sixteenth century; that, if anything of this could be pointed out, it would greatly strengthen the whole theory; and that he much wished some examination with regard to this particular. Answer was given him that the suggestion refers to a matter of detail which we could hardly hope to find in so summary a symbolization of our economy as a whole; that, in the scriptural prophecies of the Church's career, specific references to the Reformation are very hard to find and identify; and that it would scarcely be fair to expect symbolisms, dating two thousand years before the New Testament, to be more full and specific than the New Testament itself. Nevertheless, it was promised to make some examination with reference to the suggestion.

In searching the recorded descriptions, notations, and measures of the Grand Gallery, nothing presented itself from which to read

aught touching the Reformation, unless, perhaps, the difference of solidity and durability in the courses of the rampstones, interpreted in the same way in which I spoke of the great step at the upper end of the Gallery (pp. 135–6). In the condition of these rampstones, some facts do appear which rather singularly coincide with features in the condition of the Church at the different dates of its history, and which may have been designed to express those features. Without intending to found an argument on these particulars, they are sufficiently curious and interesting to be noted.

The rampstones on the east side of the Grand Gallery, from 1087 to 1186 inches from the beginning, seem to have been unusually weak and frail, as much of the ramp for this interval is almost entirely broken away. So on the west side, from 1240 to 1317 inches, the ramp has considerably yielded, and is much broken away. So the incisions in the ramps, that is, the ramp*holes* or little open graves, on the east side, from 1087 to 1186 inches, are almost entirely gone, broken away. On the west side, from 1240 to 1317 inches, it is the same.

Another presentation is that the east ramp, from 640 to 1400 inches from the beginning,

is much "fissured and parted from the walls, also the floor from the ramps." On the west side, for this same distance, the floor is parted from the ramp, so as to leave a crevice half an inch wide.

Prof. Smyth remarks that "along nearly the whole distance from 400 to 1800 inches of western ramp, and occasionally along eastern ramp, there are longitudinal parallel scratches, forming almost a border, or species of intended ornament, following the direction of the ramp. They are *inflicted upon* and along its upper edge, close under the top, and toward the axis of the Gallery. But, although the same lines are traceable far, they do not extend the whole distance, being more or less gradually retraced by others."

If, then, we take an inch as the symbol of a year, as in other instances, we would thus have signs of weakening and giving way from 1000 to 1317, and so again from 640 to 1400. There would seem to be also the signs of violent and varied defacements, beginning with about 400, and extending more or less, with some interchanges, down to our present century. Compare these indications now with the historical facts and general condition of the Church at those dates of our era.

A.D. 640. This was the time in which lordly privileges and investments were conferred upon the clergy, introducing that wide and long-continued severance between them and the laity. It was the time when the Romish hierarchy gradually began to assume its imperious authority, which grew and continued in its strength for so many centuries.

A.D. 1000 to 1300. In this period the Church reached its most ruinous condition. It was the *sæculum obscurum* of Christian history, the age of darkness. It was during this time that the Church was rent into two opposing factions, the Eastern and the Western, which mutually excommunicated each other. It was the period in which transubstantiation was confirmed as a doctrine, Mariolatry inserted in the liturgies, converts made by force of arms, and religion turned into a mere mechanical routine. It was the age of Hildebrand, and the establishment of a Cæsarism over the Church of God. It was the period of the dominancy of monkery in its worst corruptions, when scandalous profligacy and ignorance disgraced the ministry, when the reading of the Bible was prohibited under the severest penalties, when false sacraments were multiplied, penances instituted, indulgences

invented, the Church subjected to a blind submission to a domineering priesthood, and interdicts and penalties dealt out upon kings and nations by a usurped plenary jurisdiction at Rome. It was the worst period in all the history of the Church, in which spiritual Christianity had wellnigh departed from the earth.

These are the inch numbers which include the greatest dilapidations, breakages, and defects. Take now those which indicate the greatest firmness and durability.

A.D. 1186 and onward presents various movements for a better order of things, the beginnings of reformation, the revival of education, the commencement of the study of the classics and of theology as a science, and the introduction of reason and sense into the treatment of sacred things. It was the age of Alexander Hales, Bonaventura, Albert Magnus, Thomas Aquinas, Duns Scotus, Roger Bacon, and the *Magna Charta*. It was the period when the papal power began to decline before the germs of free institutions and popular rights, the founding of universities, and the study of religious doctrines. It was the period when the human mind began to stir again. It was the period of the laying of the foundations

on which the great Reformation was subsequently wrought out.

A.D. 1400 and onward was specially marked as a period of reformers and of reformatory discussions and councils. It was the period of Wickliffe in England, Huss in Bohemia, Gerson in France, Tauler in Germany, and Thomas a Kempis. It was the period of early Bible translations, of the study of the Scriptures, and of general awakening and agitation on the subject of a purer and living faith, and a better morality, which came to fulness and matured fruit in the hundred years succeeding.

But besides the brokenness and waste of the ramps and the rampholes, and the damaging partings that appear, there are particular scarifications. They have the peculiar character of being "*inflicted*," or imposed by some adverse violence, partly on the eastern ramp, but especially on the western, from 400 to 1800. They are interchanged with each other, one seemingly running out, and then another taking its place. They tell of extraneous power brought to bear to tear and scratch the ramps, and to disfigure them. And when we consider the Church's history with reference to such scarifying external powers exerted in and upon the Church, it is difficult to conceive a more ex-

pressive figure of them than the appearances on these ramps. Going back to A.D. 400, we strike the very time in which Alaric and his heathen hordes came down like an avalanche, scarifying, oppressing, and crushing almost to destruction, the Church, with the nations which he, and those who so speedily followed him, overran. Soon after these barbaric invasions in the west came Mahomet and his victorious armies in the east, much after the same style, whose baleful scourgings of the Christian peoples and Church extend through the centuries. About that same period emperors commenced their political interferences with the Church, putting forth enactments which had to be obeyed, conferring State powers on Church offices, secularizing the clergy, and enforcing many an extraneous and rasping domination in and upon the family of Christ, the scars of which can be traced in varying lines through all the succeeding ages. The State legislation which is still betimes hurting and cramping the Christian household is but the dwindled continuity of the same scarifications.

I lay no special stress on these somewhat striking coincidences. If they stood alone I would not mention them. It is but natural that some stones in the ramp-courses in such

an edifice as the Pyramid should be more firm and durable than others, though selected with a view to equality. Nor is it marvellous that some accident should have inflicted those interlaced scar-lines and defacements, either in the course of the building or since. But still, if God really had anything to do with the construction of the Pyramid, He could just as easily as not have caused those weaker stones and those violent inflictions to come just at those places, and between those measures, where they would best symbolize these incidents of the history. Neither is it impossible that the builders should have consciously, by His direction, so arranged. This, however, is plainly to be seen, that these weaknesses and scarifyings do appear where they belong, on the theory that the Grand Gallery was meant to be a symbol of the Gospel dispensation, and that the facts in the Pyramid do strikingly accord with the facts of the history. It may be mere coincidence; but, considered along with so many other things of the same fitting character, it cannot be without some incidental worth, an unexpected side-light, in confirmation of the conclusions touching this great Pillar of Witness. It is the more noteworthy for the details of the history with which it coincides.

Outcome of the Grand Gallery.

But if the Grand Gallery is in truth a correct symbol of the Church's career on earth;—if indeed we have here a monumental attestation to those sacred prophecies and showings which the Scriptures have recorded for our learning touching this world's close, we are now so near its end, that we cannot view it with seriousness and not be somewhat anxious about the outcome from it.

Everywhere does the holy Book inform us, that, as our dispensation begun with the personal advent of the Saviour, so it is to terminate with a second advent of that same Jesus, who is to come again in like manner as he was seen to depart forty days after his resurrection. That second coming is also represented as sudden and stealthy—not totally unheralded, but with the signs and announcements of it unheeded by the great body of mankind, including the nominal Church as well. Everywhere all Christian people are exhorted to keep themselves in thorough readiness, for the reason that "in such an hour as ye think not the Son of man cometh." Without these sacred instructions from Christ and his inspired messengers, we could not know

these things, and could not read them from the Pyramid. But with the plain written word before us we can find here a correspondence so exact to the letter of Scripture, that we must refer both to the same eternal prescience, and may assure ourselves of the true interpretation of the one by the monumental attestations of the other.

Our dispensation is to have an end, followed by a dispensation of sore judgment upon the unready when that end comes. This is Bible doctrine. And so the Grand Gallery suddenly terminates against a high, impending, solid wall.

But, although our dispensation (αἰών) is to come to a sudden and perpetual end, it is not the teaching of the Scriptures that the earth is then to cease to be, or that men will no longer live on it, or that all history is then to terminate. The earth will continue; there will still be people upon it, and some sort of history will go on. But it will be a very different history from that which now is. The dispensation will be changed, and the whole current and condition of things suddenly and greatly altered. All the commissions and appointments under which the Church and Christians are now acting will then expire by limitation. Everything then will come under a new

order, determined by new manifestations from heaven, and shaped to a different administration. Time will not cease; worlds will not be missed from their orbits; but *the last day* of this αἰων will have expired, and the period of judicial retribution will have set in. Such is the tenor of the Scriptures, and such are the showings in the ending of the Pyramid's Grand Gallery.

There is a twofold outlet or continuity from this grand room of the seven courses—one above and one below. The one above is the nearest to the beginning, if we take the vertical measures of it, for the south end wall leans inward about one degree. If measured at right angles with the incline of the Gallery it is about three times that distance further off than the base of the wall. This upper outlet was first discovered by Nathaniel Davison in 1764. It is at the top southeast corner of the Grand Gallery, about twenty-eight feet above the main floor, "only accessible to something approaching to winged and flying, rather than walking, beings." It is a low passage, which the discoverer found almost closed up with the filth of bats, and which he with much labor and patience cleared out. He found it leading horizontally southward for about three

hundred inches into the lowest of those five "Chambers of Construction," which a clerical correspondent thinks symbolic of degrees and sanctuaries of rest in the supernal life of the saints. The low, unfinished room over the King's Chamber, has the indications of a sort of concealed retreat, far out of the way, inaccessible, except to a few, and not significant of a permanent abode of life. Egyptology has no explanation for it. Nothing in the line of scientific symbol has so far been found in it. And in biblical eschatology alone do we find any call for such indications, in order to furnish a thorough symbol of the final outcome from the Gospel dispensation. Note the Scriptural teachings.

Immediately on the termination of the Saviour's judgments of the seven Churches, John, in the Apocalypse, beheld "a door opened in heaven," and heard a trumpet voice, which said, "*Come up hither.*" At once he found himself in the Spirit, gazing upon the divine wonders of the higher world. This is the termination of the Church's earthly history as to the best and truest part of it. The Saviour has elsewhere told us more plainly that, when the great day of judgment breaks, there shall be some who, by constant watch-

fulness and prayer, shall "be accounted worthy to escape all these things that shall come to pass, and to stand before the Son of Man;" that "in that night" one in bed, or grinding at the mill, or out in the field, "shall be *taken*," while others "shall be *left*;" and that those who are thus "taken" are "*eagles*," who, by that ereption are to soar to the high unseen place, where the Lord, from whom they have their life, will then be. Paul has likewise exhorted us to comfort ourselves with the doctrine that, when the trump of God shall sound, "the dead in Christ shall rise first; then we which are alive and remain shall be *caught up* together with them *in the clouds*, to meet the Lord in the air." Such revealed facts as to one outcome from the dispensation that now is, call for just such an arrangement to symbolize them as we find in this top outlet from the Pyramid's Grand Gallery. And there it is, for no other ascertainable purpose than just this, adding another most significant item of evidence that this Gallery was really intended to be a symbol of the Christian dispensation, and furnishing monumental proof, of four thousand years' standing, to the truthfulness of the literal interpretation of God's Word on this momentous subject. Can any fair and

honest man believe that it just happened so? Have we not here "a sign and a witness unto the Lord of hosts in the land of Egypt?"

The only other exit from the Grand Gallery is through the passage leading from it to the King's Chamber. It is continuous with the floor of the Gallery itself beyond the great step. If the Grand Gallery, therefore, refers to earthly life, so must this passage relate to a continuity of earthly history. It is in no respect the continuity of the Grand Gallery. That sublime chamber of the seven courses ends most positively against that impending south wall sixty-one inches beyond the great step. Every feature and characteristic of it terminates at or about that point. The same floor-line continues, but nothing else does. It answers to the idea of earthly history continued, but put under very different conditions. The way out is as distinctly marked by peculiarities of its own as the Gallery from which it leads. It is a low opening, of the same kind as that by which the Grand Gallery is entered, only that it is very sensibly lower. It is but forty-four inches where the other passages are fifty-two. It is the most humbling and trying part in all the Pyramid system of passageways. A man must pain-

fully bend in passing through any of them, but here he must crouch himself down into far greater inconvenience.

Sacred prediction tells of sore trials to the unready world when Christ comes. The eagle-eyed watchers are to mount up at the first signal to the sacred pavilion of Christ's presence, and thus escape what is then to come upon the earth. The true Philadelphians, who faithfully keep the word of their Lord's patience, called up through the door opened in heaven, shall be kept from the hour of trial then to befall the world. But, for all else that live, there will then set in a period of burdens and griefs which shall bow them more and weigh them deeper down than ever mankind were weighed down in all the preceding history of time. So the Scriptures everywhere affirm; and here is a speaking correspondence with what they say, as vivid as any words can make it. The first hair's-breadth beyond the line of the Grand Gallery's ending brings the passenger down in painful humiliation, from which no possible relief can come for as many inches as there are weeks in a year. Could it be mere accident? What thought or fancy freak could have induced the builder of a mere tomb to introduce such strange and incommoding, yet

such distinct and positive, peculiarities? And seeing how expressively, along with the numerous other particulars, it falls in with the inspired records, may we not legitimately infer that the Spirit which fashioned these otherwise inexplicable avenues, and studied emplacements of polished rocks, is the same that indited the holy prophecies?

Time of the End.

Whether the same correspondence will hold good as to the number of inches in the length of this Grand Gallery, time only can determine. A few years more will test and settle it. Meanwhile, it is going beyond the province of these investigations, wonderful as have been the facts brought out, to assume and teach that the end will certainly come in the precise number of years from Christ's birth that there are inches in the floor-line of this Gallery. My office in this matter has been to trace facts and coincidences between the Pyramid and ascertained scientific and biblical truth, whereby to identify a wisdom in this mysterious pile, which could only come from a divine source, and so to establish the monumental reality of inspiration, but not to make

predictions of the future. There are questions unsettled with regard to the precise year in which Christ was born, as well as some diversity of results according as we construe the several peculiarities affecting the measurements, which must at any rate somewhat disable certainty and confidence. It is altogether better, therefore, to leave the number of inches in the length of the Grand Gallery untouched, and merely set ourselves to keep in watchful and waiting readiness for whatever may come, till the few years in the near future shall determine whether things are to turn out as they would seem to be indicated or not.

When the end of the present dispensation shall come has been an anxious question among Christians for nearly two thousand years. Inquiry, and desire to be informed about it, is the natural fruit of faith in what has been foretold and promised in the Scriptures. No one should be censured or lose caste for being concerned to know when the great things of his hopes are to be consummated. The holy Apostles themselves were deeply exercised and often inquired with reference to this point. But God has seen best to throw a thick veil over it, which we should not obtrusively try to lift by any over-curios-

ity of ours. And by whatever indications led to think our redemption on the eve of accomplishment, we should never lose sight of the Saviour's answer to those who sought his instructions on this point, namely: "*It is not for you to know the times or the seasons, which the Father hath put in his own power.*" It is uncertain and dangerous ground on which to adventure. Almost every century since our Lord's ascension has had its time set in human speculations for his return to judge the quick and the dead, but thus far all such attempts to fix upon the date have utterly failed, to the great discomfiture of those who thought themselves amply assured, thus piling up demonstration on demonstration to the truth of the Master's words: "*Of that day and that hour knoweth no man.*" The Rationalistic world is ever parading these signal failures as the standing reproach of all prophetic study, and we put ourselves in the position of very unapt and unwilling scholars if we are not effectively admonished by them to suppress our zeal and to practice becoming reserve touching specific dates of unfulfilled predictions. For more than a third of a century I have been much occupied with the study of these things, but it has not sufficed to bring

me into the clear respecting the arithmetic and chronology of sacred predictions. That we are close upon the end, so close that we should be in expectant readiness every day and hour, I do believe and testify, as the concurrent teaching of all the precepts, promises, and prophecies relating to the subject, and of all the light and probabilities within the reach of man; but just *when* the solemn moment shall arrive, or in what day or year it will come, I can by no means tell, and doubt if we ever will definitely know till the summons from heaven shall call the ready and waiting saints to meet their Redeemer in the hidden place beyond the clouds. If any quote me as holding or teaching for sacred certainty on this subject anything different from what I here express, whether it be for approval or blame, quote what I do not mean and never have meant to be understood from anything I have thus far said or written at any time in any place. History and observation have also shown me that the human mind is ill prepared for sober profit from indications of definite time respecting such tremendous matters, whatever guards, as mere conjecture, are thrown around them. There is nothing that more readily dazes the understanding and puts

unreason on the throne, whether on the part of those who accept or those who cavil. I have betimes felt called, for purposes of general information, hypothetically, and without thought of indorsement or denial, to give what others thought and argued, or what was implied in interpretations extensively accepted; but instead of the statements being taken as they were intended, with the plain and amply expressed reserve as to any judgment on the certainty of the premises involved, possibilities were seized upon as if they had been pronounced doctrines, likelihoods as if they had been given as convincing proofs, and the methods and conclusions of others as if they were my own undoubting convictions, thus evoking harsh and undeserved animadversions on the one hand, and lending unfortunate encouragement to fanatical assurance on the other. And because of this strangely feverish disability to deal with ordinary soberness respecting even the most guarded presentations on this subject of *the time*, when the length of the Pyramid's Grand Gallery, viewed as a symbol of our dispensation, was touched in the preceding Lectures, I purposely left the figures far in the background, couching the statement in indefinite terms, quite sure that

if baldly given they would be unwarrantably seized, magnified, and used by some as an alleged element of definite prophetic certainty, which I did not and do not now consider them.

In view, then, of all the facts of the case, this only needs to be added here, to wit, that enough appears from the present state of these Pyramid investigations to serve as a very solemn admonition to all men to bethink themselves of what Jehovah has foreannounced in his written word, and to take heed lest at any time their hearts be overcharged with surfeiting and drunkenness, and cares of this life, and so that day come upon them unawares, "for the day of the Lord so cometh as a thief in the night." The Scriptures make it the solemn duty of every one to be in constant readiness and expectation for what must shortly come to pass, no matter what may become of the Pyramid theory. Meanwhile, we incur no risk, and inflict no damage on ourselves or others, if we are the more quickened by the seeming intimations of this mysterious pillar to what is equally our duty and only security apart from any of these Pyramid deductions. It will not do to conclude and say, as a matter of faith and doctrine, that our Lord will certainly come

when the number of years from his birth has equalled the number of inches in the floor-line of the Pyramid's Grand Gallery, as that would be to propound for unmistakable divine truth what yet remains to be attested as such. But just as little will it do to conclude and say that our Lord will *not* then come, seeing that any day or hour may precipitate us into the midst of the opening scenes of the day of judgment. God only knows what the future will bring. And, in view of the inscrutable uncertainty in which He has seen fit to envelop this question of "the time," the plain command to all is: "WATCH, THEREFORE, FOR YE KNOW NEITHER THE DAY NOR THE HOUR WHEREIN THE SON OF MAN COMETH."

With these remarks I close this discussion. I have, in good faith, discharged what I was led to consider an important duty with regard to this Pyramid subject. There was room, call, and necessity that the wonderful facts of the case should thus be brought out and put within the reach of our reading public in a form which could be readily followed, understood, and mastered by all. Whatever imperfections may have attended my efforts, the work which I proposed to myself is now done. I have thus furnished what may be taken as an adequate popular *introduction* to all the ex-

isting information touching the oldest, greatest, and most marvellous edifice on the face of the earth built by human hands. The varied and important worth of the subject to science, philosophy, and religious faith is my apology for pursuing it so far. The same would also be ample justification, as it should be a powerful incentive, to still further and more thorough investigations, particularly as we are as yet only a little way within the margin of what I believe is yet to come out of that great Pillar of Witness. I have no regrets for having bestowed so much valuable time and diligent labor in this direction. I have been abundantly rewarded in the satisfaction the study has afforded me, in the new fields of learning and thought it has incidentally opened to me, and in the clue it has given me to many things of worth which I never otherwise could have reached. And if any have been, or shall be, moved by my endeavors to follow my example in trying to search and construe this sublime memorial of the primeval world, I feel sure that they will in the end agree that I have not spoken without reason, and that I have not erred in pronouncing the Great Pyramid of Egypt A Miracle in Stone.

Gazing, rapt, awed, upon that mighty pile,
The mind is filled with wonder, and we ask,
Is it a tomb or teacher? Whence its style?
What men, what age conceived, achieved the task?
Wonder of wonders in this land of Nile,
Of what great thought is it the type and mask!

Its chambers, passages, mysterious Coffer,
Its layers, angles, measurements, and stone,
All, each, to unsealed eyes of men now offer
Solutions (for four thousand years unknown)
Of truths which stand against the doubting scoffer,
The clearer from their test, as fully shown.

How, in its presence, modern pride is bowed!
Its hoary wisdom whispering from the dead,
Sublime, mysterious, awful, with the shroud
Of forty centuries wrapped around its head!
We catch its muffled tones, now low, now loud,
And hear with wonder nigh akin to dread.

APPENDIX.

EXTRACTS FROM RECENT WRITERS.

As a sequel to the preceding lectures, it may be proper, and may give satisfaction to many readers, to present the opinions and statements of some others, in their own words, with regard to this interesting subject. A few such extracts are accordingly inserted here by way of *appendix*

REV. JOSEPH TAYLOR GOODSIR, F.R.S.E.

"I believe that several important things fully warrant us in maintaining that there was, when the Great Pyramid was builded, and that there is now, a very sufficient final cause for the rearing of such a scientific symbol as it has the best claim to be considered. The urgency of this final cause may be seen to have been great at first, because in spite of all that had occurred at Babel, the two chief nations of earliest antiquity, Chaldea and Egypt, had determinedly adopted sabaism as their worship, either by itself or mixed with other superstitions ; and secondly, it is great in these times when a lamentable number doubt or avowedly disbelieve, and even laugh at, that Biblical record to which the world owes its present freedom from sabaism and innumerable other evils, and when many would ask us to take Lucretius as our Bible, and a Lucretius, too, expurgated even of the pagan's allusion to a remote region in which he allowed there might be gods, but gods who cared not for man or his affairs.

"At the earlier of the two periods referred to, the Great Pyramid, possessing the character proven to belong to it,

would act as a standard protest against sabaism and other idolatries, and also against the injustice which invariably asserts predominance over the mass of mankind, when they enlist themselves in the service of falsehood. Certain scientific and physical conditions required that the magnificent protesting fabric should be placed in Egypt rather than in Babylonia, the seat of the undivided sway of sabaism. But there is no reason to believe that intercourse between the primeval nations was so limited that the religious and moral lessons intended to be taught by the chief wonder of the world at that time could not reach from Egypt to Babylon. Doubtless it would be treated by the followers of sabaism in Babylon just as it appears to have been by those in Egypt. That is to say, there would be continuance in sabaism in Babylon just as there was in Egypt after the strong hands of the royal builder, who trod under his feet Egyptian gods, were powerless in death. At the same time the Egyptians would appear to have retained and handed down a partial knowledge of the true character of the pyramid, until it became gradually obscured, and was at last quite lost. But amongst the worshippers of the Lord God the knowledge of its true character was long preserved, as would appear from the symbolic use of it made in the Book of Job, and elsewhere in Scripture. The traditional knowledge of it, or of the science symbolized by it, preserved among the people of God, was one means we believe of saving them from that worship of the sun, moon, and stars which Job declared to deserve, even on its first appearance, death at the hands of the magistrate. And I may state that for my own part I trace the fountain of physical knowledge which was opened by God for primeval man, and which was symbolized by the Great Pyramid, certain approaches made by some Greek philosophers to some cosmical views deemed to belong purely to modern times. These philosophers themselves ascribe their knowledge of these things to Eastern and Egyptian sources Thus, Thales held all things to have originated in a fluid

substance; Lucippus, the earliest Greek teacher of the atomic theory, held, as Aristotle tells us Pythagoras did, that the heavenly bodies revolve about each other, committing the error indeed of making the sun revolve about the moon, but still teaching truly that the earth revolves about the sun, and also about its own axis, by which last the alternation of day and night is caused. It appears to me that what is true in this early astronomical view is so far removed from the obvious and common conception of the subject, as to warrant the idea that the erroneous portion of the statement was man's corruption of the pure primeval knowledge symbolized by the Great Pyramid, for this among other reasons, that it might show us in these last days how God supplied physical knowledge to primeval man that he might be warned against such monstrous superstitions as sabaism, and that the possession of a measure of such knowledge might preserve his true worshippers from many destructive errors.

"But again, this primeval monument, after the lapse of more than four millenniums since its construction, is subserving at this very day most important purposes as respects wisdom and knowledge. The gradual disclosure of its scientific mysteries is a result in a great measure of the partial dilapidation it has suffered, especially during the times of the barbarous Mohammedan rule. The number and importance of the lessons which its disclosed mystery teaches is indeed very striking. Thus it testifies to the state of the stellar heavens at the time of its building, and teaches at the same time its own age. It helps also to determine the date of the flood, and to give consistency to the chronology and history of diluvian and post-diluvian times. It testifies to the importance of the exact and of the physical sciences—terrestrial and cosmical—not merely from the utilitarian, but from the religious point of view. It shows that some unidolatrous men possessed extraordinary knowledge in these sciences just when the whole world was going widely astray in the worship of sun, moon,

and stars, and it thus seals, as with a divine impress left on adamantine materials, the truth that sound science is not only a handmaid but a defender of sound religion. Moreover, it shows the symbols of just weights builded into a most durable repertory, as they were afterwards laid up in the temple of Jerusalem, at the very time when a brutal tyranny was gradually overspreading the idolatrous world, which may be said to have had its chief seats in Egypt, and in Babel, the capitol of Nimrod, that mighty hunter before the Lord—a tyranny which, instead of revering a justice determined scientifically according to the measures and weights employed by Opifex Mundi himself when he 'fetched a compass round the universe,' and 'weighed the hills in a balance,' despised all justice, and crushed the body of mankind down into beasts of burden.

"Such are the things taught us at this day by the Great Pyramid, as there are noble men of science sufficiently animated with Christian truthfulness and courage manfully to proclaim. We thus see a united science, righteousness, and religion testifying from the Great Pyramid with a reawakened mien, just as they were intended to do more than four thousand years ago. The oldest and noblest building is thus seen to be at one in testimony and in spirit with the oldest and noblest book. God is making that great name for himself, I believe, by the Great Pyramid at this day, which the builders of the tower of Babel sought to make for themselves. If there be any truth in the opinion of those who believe that they can point to some of the remains of the tower of Babel, then these now present only a mass of rubbish, blasted and vitrified by the wrathful fires of heaven, though the chief part of the buildings has undoubtedly sunk out of human sight into the soft alluvial soil on which they were so unwisely erected. Their only lesson is that of desolation wrought by a just divine vengeance, and the shortcomings of human ideas. The Great Pyramid, on the other hand, is lasting as the hills, even as the rocky hill on which it is so securely

founded, while the very denudations it has experienced by the torrents of barbarism rather than of the elements, have only furthered God's plan of making it his witness to scientific truth in its relations with justice and religion in these last days.

"Putting together then the various things we have insisted on, I ask whether it is after all so wild and chimerical an idea that God should have stirred up, in the primeval age of the world, men who knew him, and who inherited or had imparted to them a divinely taught science to construct this greatest of all builded monuments? Is not this rather the *rational* view to take of it? Here, for one thing, is a scientific symbol, as measurements, calculations, and reasonings of an incontrovertible kind prove it to be. This matter stands on its own basis. Again, Scripture contains a number of allusions and symbolic expressions which find no object so exactly and completely suitable as this confessed 'wonder' of the ancient world. This also stands on its own basis. Still further, some such sufficient reason as the symbolism of the Great Pyramid presents is required to account for the wise and sensible views of the Cosmos entertained by the true worshippers of God from the earliest ages. This is certainly a consideration of weight not easily cast aside. In this last consideration is also seen one part of the final cause for the construction of a symbol like the Great Pyramid shortly after the arrangement of the building of the tower of Babel, while another portion of this final cause is seen in the inestimable benefits, historical, economic, moral, and religious, conferred on us by the scientific character of the Great Pyramid at this day.

"Here, then, are four firmly grounded, quite independent reasons, which unite in supporting the beautiful and no less valuable theory as to the divine authorship of the Great Pyramid. We can discern clearly in our subject also the illustration and confirmation of this grand moral truth: Man's ambitions and wicked designs for making a name to himself, as a power without God, are invariably blasted

and end in shame, but God's works endure and testify to the glory of that name which will outlast the sun, moon, and stars."—*Seven Homilies on Ethnic Inspiration*, 1871, pp. 59–64.

J. RALSTON SKINNER.

"To a mind unbiassed by the prepossession of a theory, the assertion that the Great Pyramid of Egypt was built to perpetuate a series of measures, astronomical and otherwise, and to contain a mathematical and geometrical system of calculation and admeasurement, cannot be received with incredulity. . . .

"As to the objects of its construction, one may be taken as *astronomical*, for the facts that the north base side coincides with the parallel of 30° north latitude, and that the mass, as to its sides, evidenced by its corner socket lines, is oriented as perfectly as could be expected of human ability. Another may be taken as *geometrical*, as it was so built that its height should be to one-half its circumference as diameter to circumference of a circle. . . .

"Hence it exhibits itself as one not only monumenting a method of quadrature, the elements of which we possess, but also a measure of the sun's time, and also the inch and foot values. . . .

"This measure is just that one that, with the ancients, seems to have stamped the whole system as natural or divine, *i.e.*, showing that man was but dealing in measures in some sort shadowing forth mechanical principles of construction, which it had pleased the Creator of all things to adopt as the law of creation.

"The original (ideal) pyramid, whence the real pyramid of the Nile springs, is directly constructed from the original elements of relation of diameter to circumference of a circle. This is circular elements *one*. On the lines of this original pyramid springs another, whose elements are circle *two*. Out of the elements *two* another set of elements is obtainable, governing the interior work of the pyramid

proper; these elements are those of circle *three*. (Problems given in detail.)

"These are the circles whence the complete pyramid, as to its outside and as to its inside, is fitly framed and put together, giving the measures of the heavens and the earth.

"While the triangle represents the pyramid, the triangle and circle represent the elements from which the plane measure of the square of the base of the pyramid is derived. . . .

"The author believes it to be shown that the elements of construction of the pyramid, and their use, agreeably to the intention of the architect, have been proved, and that these are shown to be used as the foundation of the Bible structure from the first chapter of Genesis to the closing scenes of the New Testament.

"But while these elements are rational and scientific, and in the Bible rationally and scientifically used, let no man consider that with this discovery comes a cutting off of the *spirituality* of the Bible intention, or of man's relation to this spiritual foundation. No house was ever actually built with tangible material until first the architectural design of building had been accomplished, no matter whether the structure was palace or hovel. So with these elements and numbers. They are not of man, nor are they of his invention. They have been revealed to him to the extent of his ability to realize a system which is the creative system of the eternal God, open at all times to man for his advance into its knowledge, just in the measure of his application and brain ability, free to all as is the water we drink and the air we breathe. But spiritually to man the value of this matter is, that he can actually in contemplation bridge over all material construction of the Cosmos, and pass into the very thought and mind of God, to the extent of recognizing this system of design for cosmic creation—yea, even before the words went forth, *Let there be!* It is the realization of the existence and mental workings

of the Divine Mind, by means of the little primal cube and its circle, which to us are tangible realities, and goes to prove to man that his soul lives, and will continue to live. and thus he may take little heed for his body, which is, however exquisitely constructed, but a mask dulling the finer power of his mental whole.

"The best and most authentic vehicle of communication from God to man, though many exist, is to be found in the Hebrew Bible, the preservation of which in its exactitudes can only be ascribed to a spiritual supervision. A like preservation of a real monument of the practical application of the Bible secret stands to-day on the banks of the Nile."—*Key to the Hebrew-Egyptian Mystery in the Source of Measures*, 1875.

CHARLES CASEY, Esq.

"It is unnecessary to multiply Eastern authority for the sacred and scientific character of the Pyramid as opposing and superior to the Western belief in the tombic theory, which, however, naturally arose and was confirmed by the erroneous conclusion that the use and character of the primary pyramid might be truly predicated from the unquestionable tombic pyramids of a later date. It strikes the writer that as far as argument goes touching the features claimed for the building, it would make no difference whatever if a massive mural tablet had been found set in the masonry of the exterior, a lid found on the Coffer, a mummy of Cheops in it, etc., etc., as the fact would still remain, that the mausoleum (if you will) and sarcophagus (if so insisted) were designed by an architect who embodied in their construction all the primary truths claimed and verified, while still leaving them suited to secondary and inferior uses, just as the Royal *Scytale* of the Spartan kings, while essential to translating a decree on which hung the fate of nations, might serve to be used for any secondary purpose.

"Therefore, the real and only question is, Whether the

Great Pyramid does or does not contain the metric features claimed for it? If it does, there remains no doubt that the architect who embodied the truths exhibited must have been superhumanly inspired, as in the age in which he lived no such knowledge existed among men [except from Revelation]. If it does not contain those metric features, demonstrative refutation is within reach of line and rule, and the Pyramid stands to be questioned of and reply for itself to all gainsayers.

"To those who reply, 'We admit the measures, but we deny the conclusions drawn from them,' the answer is, that if the measures, as in the instance of the base side length giving the length of the solar tropical year, exhibited but one instance of preconceived design, it might be said that such coincidence was accidental, but when a concatenated chain of design is shown of the highest order of scientific knowledge, the denial of such design in the mind of the architect is of that class which refutes itself by the absurdity of its assertion.

"Every dispassionate reader who has paid due attention to the argument advanced must be impressed with the conviction that in this our day and generation, no more important question or discovery has arisen or been made than the character and revelation of this Sethic monument, the Great Pyramid, in, but not of, Egypt."—*Philitis, or the Solution of the Mystery*, 1876, pp. 36, 37.

JOHN TAYLOR.

"When so many evidences of the scientific knowledge of the founders of the Great Pyramid present themselves, these facts cannot be disregarded. The difficulty may be great in supposing a people to have been in existence at that early period, who were capable of executing a work of so vast a magnitude on purely scientific principles, but is it not also probable, that to some individuals God may have given the knowledge, even at that early age of the world, for which we are now contending? How could Noah have built the

ark if he had not been divinely instructed as to its fabrication? And might he not have been equally instructed in the knowledge requisite to form the Great Pyramid? Both these wonderful works are based on *measure*, and the latter structure shows a knowledge of those measures which were in use before the flood, as well as of those which were afterwards established, implying therefore an acquaintance with antediluvian things. How could the Arabian numerals, and the knowledge by which they were so arranged as to increase tenfold in power by change of position, have been discovered so soon after the deluge, if the same system had not existed before, or if divine assistance had not been granted at so early a period after that event? Even after these figures had once been known, the majority of mankind for at least three thousand years remained ignorant of their use, and never again hit upon the arrangement as a discovery.

"Moses, we are told, was *admonished of God* when he was about to make the Tabernacle, which was to serve as the example and shadow of heavenly things, 'for see, saith he, that thou make all things according to the pattern shewed to thee in the Mount.' There is an orginality in the character of these early revelations, which shows them to have had a higher source than that of man's present intelligence, great as it may seem. Our modern discoveries are rather *inferential*, consisting chiefly in the application to things known to purposes previously unknown. Of this kind is the invention of the art of printing. I would not detract from the importance of modern discoveries, but I think they seem to benefit mankind less than the communication of the art of ship-building, of the Arabian system of enumeration, of geometry, or the means of measuring the earth, and of the art of alphabetic writing:

'So thoughts beyond their thoughts to those high bards were given.'

"In regard to the Great Pyramid, it was the happy discovery of the two casing stones, when all were thought to

be destroyed, which at once changed conjecture into certainty. We now probably know all that we shall ever know respecting the origin and purpose of the Great Pyramid, and all that we require to know. We now find that all the seemingly different measures, when properly understood, are equal to each other, and mean the same thing By the knowledge derived from the angle of the casing stones, and the length of the base of the Great Pyramid, all those measures of proportion which seem arbitrary in the *Table of Constants*, are found to be no longer so. The measures of the earth are no less certainly established.

"When we find in so complicated a series of figures as that which the measures of the Great Pyramid and of the earth require for their expression, round numbers present themselves, or such as leave no remainder, we may be sure we have arrived at primitive measures."—*The Great Pyramid, Why was it Built? and Who Built It?* 1864.

PIAZZI SMYTH, F.R.S.E., F.R.A.S.

ASTRONOMER ROYAL FOR SCOTLAND.

"What then is, or is to be, the end or use for which the Great Pyramid was built?

"The *manner* of that end appears—on putting facts together—to have been, to subserve in the fifth thousand of years of its existence certain preordained intentions of God's will in the government of this world of man.

"I presume not to speak to any other than such parts of the building as have already practically developed themselves. Herein, too, enough seems now to have shone forth to enable any one to state roundly that the message wherefor the Great Pyramid was built is largely of a duplicate character, or thus:

"(A) To convey a new proof to men in the present age as to the existence of the personal God of Scripture, and of his actual supranatural interferences in patriarchal times with the physical and otherwise only natural experi

ence of men upon earth. Or to prove in spite, and yet by means, of modern science, which in too many cases denies miracles, the actual occurrence of an ancient miracle, and if of one, the possibility of all miracles recorded in the Scriptures.

"(B) In fulfilment of the first prophecy of Genesis, which teaches, together with all the prophets, that of the seed of the woman without the man, a truly Divine Saviour of mankind was to arise and appear amongst men, in poverty, too, and humility; in further fulfilment thereof, the Great Pyramid was to prove that precisely as that coming was a real historical event, and took place at a definite and long-preordained date, so his second coming, when he shall descend as the Lord from heaven, with the view of reigning over all mankind, and ruling them all with one divine sceptre, and under one all-just, beneficent, omnipotent sway, that that great event will likewise be historical, and will take place at a definite and also a primevally prearranged date.

"Now let us look a little closer into the first of these.

"It would seem to be, that an omniscient mind which foresaw in the beginning the whole history of the world under man (especially the widespread science knowledge of our day), ordained that the message, arguments, proofs of the Great Pyramid should not be expressed in letters of any written language whatever, whether living or dead, but in terms of scientific facts, or features amenable to nothing but science, *i. e.*, a medium for the communication of ideas to be humanly known and interpretable only in the latter day.

"Not in the day of the Great Pyramid at all, but rather since the revival of learning in Europe, no pure mathematical question has taken such extensive hold on the human mind as 'the squaring of the circle.' Quite right that it should be so, for a time at least, seeing that it is the basis alike of practical mathematics or high astronomy. That quantity under the form of π proportion, given in almost

every text-book of mathematics to more decimal places than there is any practical occasion for, having been ascertained for one hundred or more years, men might rest content and go on to other subjects. But numbers of them do not and will not. Hardly a year passes but some new squarer of the circle appears, generally a self-educated man. But occasionally the most highly educated university mathematicians also enter the field, and bring out perchance some new algebraic series by which a more rapid conveyance to the true numbers of π may be obtained. That numerical expression is shown on all hands and in all countries to be one of the most wonderful lasting characteristics and necessary results of the growth of science for all kinds and degrees of intellectual man, and in an increasing proportion as they arrive at a high state of civilization, material progress, and practical development.

"Is it not then a little strange that the first aspect which catches the eye of a scientific man looking with science and power at the ancient Great Pyramid, is that its entire mass in its every separate particle, all goes to make up one grand and particular mathematical figure expressing the true value of π? If this was accident, it was a very rare accident, for none of the other thirty-seven known pyramids of Egypt contain it. But it was not accident in the Great Pyramid, for the minuter details of its interior, as shown, signally confirm the grand outlines of the exterior, and show again and again those peculiar proportions, both for line and area, which emphatically make the Great Pyramid to be, as to shape, a π-shaped and a π-memorializing pyramid,—the earliest demonstration known of the numerical value of that particular form of squaring the circle which men are still trying their hands and heads upon.

"Again, in physics, as a further scientific advance on the foundations of pure mathematics, is there any question so replete with interest to all human kind as what supports the earth, when as Job truly remarked, it is hung from

nothing, suspended over empty space, and yet does not fall? As it regularly revolves around a bright central orb, and in such a manner as to obtain therefrom light and heat suitable to man, and day and night, what is the nature of that path which it so describes, and what is the distance of the physical life luminary round which it now revolves? As in squaring the circle, so in measuring the distance of the earth's central sun, both learned and unlearned have been working at the question for twenty-three hundred years, and are still employing themselves upon it. Nothing that nations can do is thought too much to devote to this question of questions in physics for the future behoof of a world grown scientific. Yet *there* is the numerical expression for that cosmical quantity nailed to the mast of the Great Pyramid from the earliest ages, for it is its mast or vertical height multiplied by its own factor, the ninth power of ten, which is the length all modern men are seeking, and struggling, and dying in order to get a tolerably close approach to the arithmetical figure of. And this accurate sun distance at the Pyramid is accompanied by an exhibition of the space travelled over during a whole circle of the earth's revolution, and the time in which it is performed.

"And if from solar system quantities we turn to matters of our own planet world in itself alone,—does not every inhabitant thereof yearn to known its size, and yet was not that impossible to all men of all the early ages to attain with any exactness? But precisely that thing which all mankind from the creation up to the day of Job had not accomplished, and had no idea or power how to set about to perform it, and did not make even any rude attempts in that direction during the following twenty-five hundred years—though they do know it now with tolerable accuracy—was not only well known to the author of the design of the Great Pyramid, but was there employed as that most useful standard in terms of which the base side length is laid out, or with accurate decimal reference to the earth's peculiar figure, its polar compression, the amount thereof,

and the most perfect method of preserving the record for all men. Who but the Lord could have done that wonder above man's power *then* to do? Who, indeed, but the God of Israel could have performed this last-mentioned still greater wonder than any mere linear measure, so far as its exceeding difficulty to men even in the present scientific generation is concerned, and could have actually introduced into the King's Chamber Coffer, and the said chamber itself, an expression for the next most important quality after size, of the earthball we live upon—viz., its 'mean density,' besides expressing in the base diagonals of the Pyramid the enormous cycle of years composing the earth's disturbed rotation or precession period of the equinoxes?

"Yet, with all this amount of science brought before us out of the Great Pyramid, yea, even with all this quintessence of scientific results, let us not be run away with by the notion of some, that to teach science was the beginning and end for which that building was erected. . . .

"The second part of the end wherefor the Great Pyramid was built, I have already said, appears to begin somewhat thus, viz., to show the reality and the settled as well as long preordained times and seasons for each of the two comings of Christ,—both for that one which has been (eighteen hundred and seventy-seven years ago), under whose then commenced spiritual dispensation we are still living, and also for that other one in kingly glory and power which is yet to beam upon us.

"*When* that second coming has been appointed to take place must be a most momentous question, and it is one to which I can only reply, that so far as the Great Pyramid seems to indicate at present in the Grand Gallery, the existing Christian dispensation must first close in some manner or degree, the saints be removed, and a period of trouble and darkness commence, for how long it is difficult to say, seeing that the scale of a pyramid inch to a year appears to change there. Very long the time can hardly be, if the pyramid standards of the metrology of that uni-

versal kingdom, the only successful universal kingdom that there ever will be on earth. the kingdom of the Lord Christ, are already beginning to appear from out of the place of security where they were deposited in the beginning of the world."—*Our Inheritance in the Great Pyramid*, 1874, pp. 463–479.

J. G., IN EDINBURGH EVENING COURANT, MAY 9th, 1868.

"In our opinion the idea of a Divine interposition in the planning and construction of the Great Pyramid, when closely contemplated as springing from all the facts and relations of the case, is perfectly rational and credible in the estimation of a rightly instructed mind. Rightly instructed mind, we say, for a man may be mighty in 'midden' philosophy, and ignorant as a child in that great mother science of catholic and revealed theology, based on the grand design argument uttered by the Cosmos, on the wide testimony of universal history and tradition, and on that testimony of human nature to religion which is so inextinguishable that it drives the very atheistic positivists into that ineffably sad idolatry of humanity itself. It is on this grand testimony that the astronomer royal for Scotland builds, and we rejoice to be of one mind with him. And this, not because we think the truth of religion, as the grandest historical element, is dependent on the truth of the theory as to the Great Pyramid, but because the principles involved in the full argumentation of this theory are among the principles of catholic theology according to our description of it, and accordingly, whether the case of the Great Pyramid be one to which these principles are rightly applied or not, the principles themselves dare not be pooh-poohed. The self-called 'advanced thinkers' of the archæological schools may scout them, but we hold, on the universal testimony of sacred and profane history, that man's story does not take its rise in a dunghill. Our creed in this matter is that blessed belief handed down in Scripture, and chanted by

the grand choir of historians and poets. The theory of the Pyramid, too, falls in completely with the grand strain. It points, on the ground of remarkable facts and coincidences, to the Great Pyramid as an instance of those divine interpositions which are known on the testimony of Scripture, corroborated by tradition, to have been made as occasion called for them, during the infant ages of the world.

"Moreover, the Great Pyramid, viewed in the light of this theory, is seen to be a peculiar one among other elements of prophecy, cast by Divine Providence as seed on the waters among the nations, to ripen in due time and serve most beneficent ends in the appointed season.

"There existed in the religious books of the ancient Persians, undoubted prophetic and apocalyptic elements, which certainly contributed along with other elements in the Magian system to form that character which fitted Cyrus and his Persians to punish the grossly idolatrous Babylonians, and free God's ancient people. Again, if ever there was a clear case of divine interposition of the more ordinary kind employed for great moral and religious ends, it may be seen in the moral and religious revival, such as it was, that took its rise in pagan Greece in the person of Socrates, and all that sprang from the influence, example, and teaching cast into society by that noble martyr. Still again, it is a matter of notoriety that the Romans treasured in the Capitol certain Sibylline books, that can be shown *not* to have been favorable to polytheism, still less to pantheism, and that they not only fell in remarkably in certain prophetic statements with the Hebrew Scriptures, but influenced the conduct of leading Romans themselves. All these we devoutly believe to have been arranged and provided by God, even as we know from history that they formed powerful elements in forces that moved the cardinal events in human history. And is any one so blind as not to see that we live in times as momentous as any since those of the flood, excepting those years when the Lord of Glory himself dwelt upon earth? For how many are ready to

shout Ío Pæan! in the vain hope that at last the 'vile superstition,' as they call it, taught in the holy Scriptures, and so marvellously supported, is doomed to a speedy extinction? Others are busily helping on this sure consummation, as they believe it, by advancing and fostering a strange philosophy, which (whatever lip worship some of its sects may pay to revelation, yet in reality) takes man up at first as an ape-descended animal, reared in barbarism, and destined in the end (so far as their philosophy can show) only to make manure for the soil he sprang from.

"When forced to hearken to such degrading opinions, is it not a boon to be thankful for, when there is presented to our contemplation a most noble builded work, which proves how far removed from savageism its architects were, at a period when history and tradition alike testify that man and the world had just emerged from an awful catastrophe? For in saying this we stand well supported, and defy any one to disprove on the only valid and allowable ground—that of universal history and catholic theology—the reasonableness and credibility of God's interfering to instruct and guide an architect, who knew and worshipped him, in the rearing of a grand symbolic building, suited according to divine foreknowledge, at least to stagger, and suggest wiser views to, certain of the 'advanced thinkers,' and rather too pensive *a priori* philosophers, of these latter days."—Reprinted in *Antiquity of Intellectual Man*, 1868, pp. 476–485.

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A MIRACLE IN STONE;

OR, THE

GREAT PYRAMID OF EGYPT.

BY

JOSEPH A. SEISS, D.D.

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